



The late Charles Caniff James, C.M.G., M.A., LL.D., F.R.S.C.
Commissioner, Agricultural Instruction Act, 1912-16.

REPORT

ON THE

AGRICULTURAL INSTRUCTION ACT

1915-1916

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1917

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OTTAWA, December 31, 1916.

To the Honourable MARTIN BURRELL,
Minister of Agriculture,
Ottawa.

SIR,—I have the honour to present the report for the fiscal year 1915-16 on the work performed by the several provinces of Canada with the funds provided under the Agricultural Instruction Act.

While the preparation of this report devolved upon me owing to the decease of my predecessor, Charles Caniff James, in June last, the work described herein was performed entirely within the period of his administration.

I have the honour to be, sir,

Your obedient servant,

W. J. BLACK,

Commissioner.

REPORT
ON THE
AGRICULTURAL INSTRUCTION ACT
FOR THE FISCAL YEAR 1915-16.

Tabled in pursuance of Section 8 of the above-named Act.

Province.	Grant.	Date.	Amount.
	\$ cts.		\$ cts.
Ontario.....	266,013 64	May 29, 1915 Jan. 17, 1916	133,006 82 133,006 82
Quebec.....	215,310 70	June 18, 1915 Oct. 4, 1915	107,655 35 107,655 35
Manitoba.....	64,421 31	July 20, 1915 April 3, 1916 May 16, 1916	32,210 65 10,000 00 22,210 66
Saskatchewan.....	68,011 04	July 16, 1915 July 20, 1916	34,005 52 34,005 52
Alberta.....	56,528 82	June 18, 1915 Nov. 24, 1915	28,264 41 28,264 41
British Columbia.....	58,265 94	April 20, 1915 June 2, 1915 April 5, 1916	10,000 00 19,132 97 29,132 97
Nova Scotia.....	68,001 87	June 11, 1915 Aug. 30, 1915	34,000 93 34,000 94
New Brunswick.....	54,308 40	June 8, 1915 Oct. 25, 1915	27,154 20 27,154 20
Prince Edward Island.....	29,138 28	June 11, 1915 Feb. 17, 1916 Mar. 24, 1916	14,569 14 8,000 00 6,569 14
Ontario Veterinary College.....	14,869 56	No payment made in 1915-16	
School of Veterinary Science, Montreal.....	5,130 44	Mar. 30, 1916	5,130 44
	900,000 00		900,000 00

Publicity— Printing and Publication of Bul- letins and Reports; other forms of Publicity work.	.....	Cost of publica- tions provided under Instruc- tion and De- monstration.	7,000 00	3,000 00	1,800 00	2,000 00	500 00	500 00	.....
Miscellaneous.....	.....	.....	3,221 31	1,011 04	28 82	2,765 94	501 87	1,308 40	1,582 14
Total.....	266,013 65	215,310 70	64,421 31	68,011 04	56,528 82	58,265 94	68,001 87	54,308 40	29,138 28

STATEMENT by Provinces of the Number of Persons whose Salaries are charged to the Dominion Grant, exclusive of Veterinary Colleges, and the amount so charged.

	Ontario.	Quebec.	Manitoba.	Saskat- chewan.	Alberta.	British Columbia.	Nova Scotia.	New Brunswick.	Prince Edward Island.
1. Number of officers continuously employed and paid wholly from the Dominion grant..	23	77	20	18	3	13	10	18	16
2. Number of officers continuously employed and paid in part from the grant	45	7	3	2	29	4	19	.....	.....
3. Number of officers employed regularly for part of the season and paid wholly from the grant.....	.....	.....	.....	4	.....	.....	4	.....	.....
Total number.....	68	84	23	24	32	17	33	18	16
Amount contributed for salaries by Dominion grant	\$ 62,000 00	\$ 51,000 00	\$ 29,120 00	\$ 40,100 00	\$ 45,220 00	\$ 19,380 00	\$ 16,735 00	\$ 24,700 00	\$ 16,880 00

Total number of regular officers paid wholly or in part by Dominion grant..... 315
Total amount contributed to salaries by grant..... \$305,135 00

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District Representatives: In the case of Ontario where there are forty-five representatives, the practice is to charge approximately one-half of their salaries to provincial appropriations and one-half to the Dominion grant, and the above computation is made on that basis. Formerly a graduate or undergraduate of the Ontario Agricultural College was attached to each office as assistant, but in view of the large number who enlisted and the difficulty in filling their places, it was decided to discontinue permanent assistants except in about half a dozen of the larger counties. At the present time, office assistance is provided, together with such special help as may from time to time be called for on account of inspection of school plots, short courses, and other forms of work that require periodical help. Regular assistants, where these are employed, office help and temporary assistants are not included in the enumeration.

Quebec has eleven district agronomists and four assistants, attached to the Provincial Department, whose salaries are paid from the grant, and Macdonald College has one.

Manitoba has twelve district representatives paid by the grant, Saskatchewan one, Nova Scotia five, Prince Edward Island two, while in British Columbia two men who act in this capacity are paid partly by the grant and partly by the province.

RECAPITULATION OF APPROPRIATIONS.

	1913-14.	1914-15.	1915-16.	1916-17.
Prince Edward Island.. ..	\$ 26,529 85	\$ 27,832 81	\$ 29,138 28	\$ 30,443 75
Nova Scotia.. .. .	54,288 45	61,144 45	68,001 87	74,859 28
New Brunswick	44,509 93	49,407 20	54,308 40	59,209 60
Quebec.. .. .	159,482 40	187,409 16	215,310 70	243,212 23
Ontario.. .. .	195,733 32	230,868 83	266,013 64	301,158 45
Manitoba.. .. .	51,730 05	58,075 45	64,421 31	70,767 21
Saskatchewan.. .. .	54,296 29	61,152 31	68,011 04	74,869 76
Alberta.. .. .	46,094 95	51,310 41	56,528 82	61,747 22
British Columbia.. .. .	47,334 76	52,799 38	58,265 94	63,732 50
Veterinary Colleges. .. .	20,000 00	20,000 00	20,000 00	20,000 00
Total.. .. .	<u>\$700,000 00</u>	<u>\$800,000 00</u>	<u>\$900,000 00</u>	<u>\$1,000,000 00</u>

VETERINARY COLLEGES.

The Ontario Veterinary College, Toronto, and the School of Comparative Medicine and Veterinary Science, Montreal, participate under the Act in an annual grant of twenty thousand dollars on the basis of the number of British subjects enrolled as students in the previous year.

For the year 1915-16 the apportionment was as follows:—

	Students, 1914-15.	Grant, 1915-16.
Ontario Veterinary College.. . . .	171	\$14,869 65
School of Veterinary Science.. . . .	59	5,130 44
		<hr/>
		\$20,000 00

Ontario Veterinary College.

One grant only had been paid to the Ontario Veterinary College at the close of the fiscal year, namely that of 1913-14, amounting to \$15,371.91.

The expenditure, under date of November 25, 1916, was as follows:—

Contingencies: postage, stationery, temporary assistance, etc..	\$ 1,612 51	
Equipment, library supplies, laboratory supplies, anatomical subjects.. . . .	7,688 28	
Printing and advertising.. . . .	597 59	
Rent, taxes, water rates.. . . .	2,192 28	
Services of lecturers, demonstrators, etc..	3,316 74	
	<hr/>	
	\$15,417 40	
Refund of duplicate payment.. . . .	65 94	
	<hr/>	
		\$15,351 46
		<hr/>
Balance on hand.. . . .		20 45

The grant contributes to the salaries of the following lecturers:—

- Instructor in Clinics and Restraint of Animals, J. N. Pringle, M.R.C.V.S.
- Demonstrator in Histology and Bacteriology, M. D. McKiehan, B.A., M.D.
- Demonstrator in Histology, H. G. Wilson, B.A., M.B.
- Examiner, S. A. Cudmore, B.A. (Oxon).

STATEMENT OF ATTENDANCE, 1915-16.

	First Year.	Second Year.	Third Year.
Ontario	28	14	11
Quebec	4	7	1
Nova Scotia.. . . .	2	1	3
New Brunswick.. . . .	1		1
Prince Edward Island	1		1
Manitoba.. . . .	2	1	1
Saskatchewan.. . . .	6	4	4
Alberta.. . . .	8	1	2
British Columbia.. . . .			1
Great Britain			1
United States	7	14	11
British West Indies.. . . .			1
New Zealand			1
Newfoundland	1		
Total	<hr/> 58	<hr/> 30	<hr/> 51
British subjects.. . . .			145
Foreign countries.. . . .			44
Total			<hr/> 189

STATEMENT OF ENROLMENT, 1912-16.

	British Subjects.	Foreign.	Total.
1912-13	186	88	274
1913-14	199	74	273
1914-15	171	61	232
1915-16	145	44	189

School of Comparative Medicine and Veterinary Science.

The grant to the School of Veterinary Science, Montreal, for 1915-16 was paid on March 30, 1916, and amounted to \$5,130.44, based on an enrolment of fifty-six students. The following expenses were charged to the grant:—

1. Practical laboratory work, purchase and hire of animals for investigation, purchase of 3 microscopes and distillation apparatus.. .. .	\$ 820 73
2. Applied on salaries account.. .. .	4,309 71
	<hr/>
	\$ 5,130 44

The following is the complete Financial Statement of the Institution for the year ended June 30, 1916:—

RECEIPTS.

Cash in bank, July 1, 1916.. .. .	\$ 252 49
Students' fees.. .. .	2,325 50
Provincial Grant.. .. .	3,500 00
Dominion Grant "Agricultural Instruction Act".. .. .	5,130 44
Rental of Hospital.. .. .	666 60
From Laval University.. .. .	10,000 00
Miscellaneous Receipts.. .. .	150 03
Loans.. .. .	3,000 00
	<hr/>
	\$ 25,025 06

DISBURSEMENTS.

Salaries of professors.. .. .	\$ 5,700 00
Salaries of officers.. .. .	800 00
Salary of the appariteur.. .. .	742 00
Administration expenses.. .. .	472 43
Laboratory expenses.. .. .	820 73
Rent of hospital.. .. .	1,201 85
Miscellaneous.. .. .	205 47
Printing and advertising.. .. .	197 59
Bank loans repaid and interest.. .. .	4,096 00
Land and new building.. .. .	6,000 00
Architect's fee.. .. .	300 00
Insurance, heat, light, etc.. .. .	4,000 00
	<hr/>
	\$ 24,536 07
Balance on hand.. .. .	488 99
	<hr/>
	\$ 25,025 06

Number of Students, British Subjects, in attendance in 1915-16:—

First year.. .. .	16
Second year.. .. .	21
Third year.. .. .	21
	<hr/>
	58

STATEMENT OF ENROLMENT, 1912-16.

1912-13.. .. .	59
1913-14.. .. .	56
1914-15.. .. .	56
1915-16.. .. .	58

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STATEMENT OF APPORTIONMENT OF GRANT, 1912-17.

	Ontario Veterinary College.	School of Veterinary Science.
1912-13 (Agricultural Aid Act).. .. .	\$15,500 00	\$3,000 00
1913-14 (Agricultural Instruction Act).. .. .	15,371 91	4,628 09
1914-15.. .. .	15,607 85	4,392 15
1915-16.. .. .	14,869 56	5,130 44
1916-17.. .. .	14,285 72	5,714 28

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ONTARIO.

AGREEMENT, 1915-16.

1. District representatives..	\$114,000 00
2. Agricultural college—	
(a) Capital expenditure..	81,413 64
(b) Salaries and expenses of additions to staff and maintenance..	12,400 00
3. O.A.C. short courses, travelling and living expenses of winners of acre profit and live stock competitions.. . .	1,500 00
4. To encourage Agriculture and Domestic Science in High, Public, Separate and Continuation schools, to be available for grants and for travelling and living expenses of teachers and others in attendance at short courses or other educational gatherings, in addition to services, expenses and equipment, and to be paid out on the recommendation of the Department of Education..	20,000 00
5. Educational work in connection with marketing farm products, including organization of co-operative societies, collection, printing and distribution of information on current prices and systems of marketing..	6,000 00
6. Stock and seed judging, short courses and institute lecture work..	6,500 00
7. Women's institute work, including courses in cooking, sewing, etc..	2,000 00
8. Short courses for fall fair and field crop judges, including travelling and living expenses..	3,000 00
9. Drainage work..	6,200 00
10. Demonstrations and instruction in vegetable growing.. . .	3,000 00
11. Demonstration work on soils..	2,000 00
12. Demonstration work in spraying, pruning, and packing fruits..	4,000 00
13. Work in bee-keeping..	1,500 00
14. Equipment of laboratory and services of Assistant, Horticultural Experiment Station, Vineland Station..	2,500 00
(Each appropriation to include services, expenses and equipment.)	
Total..	\$ 266,013 64

District Representatives, \$110,555.

By far the larger portion of the grant to the province of Ontario was, as in former years, allotted to the work of the district representatives, the amount being \$114,000, as against \$100,000 in the previous year.

In 1911 (the year before the Dominion grant became available), the number of counties served by special representatives was twenty, and some \$44,000 was expended by the province in this connection. In 1915 the number had increased to forty-five, and in most cases assistants had been provided together with such office help as was called for by the great increase in the work performed. The total appropriation in 1915, apart from county grants, amounted to \$190,000, of which sum the province provided \$80,000, and the Dominion grant the balance.

In the opinion of the president of the Ontario Agricultural College, "No better work is being done anywhere than these men are doing among the farmers of the province." It is not necessary in this report to present more than a summary of the activities engaging their attention, for the reason that this subject has been dealt with somewhat fully in previous reports, and will be found set out in detail in recent reports of the Ontario Minister of Agriculture. Of these activities the following list is typical, and represents the average county in the province.

1. Farmers' Clubs; 2. Stock and Seed Judging Courses; 3. Fruit Institutes; 4. Farmers' Institutes; 5. Apiary Demonstrations; 6. Drainage Surveys; 7. Ploughing Matches; 8. Egg Circles; 9. Six Weeks' Courses in Agriculture; 10. Junior Farmers'

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Improvement Associations; 11. Acre Profit Competitions; 12. Feeding Hens for Profit Competitions; 13. Baby Beef Competitions; 14. Inter-County Live Stock Judging Competitions; 15. Potato Variety Tests; 16. Corn Variety Tests; 17. Alfalfa Variety Tests; 18. Sweet Clover Variety Tests; 19. Potato Spraying Experiments; 20. Fruit Growers' Associations; 21. Fall Fairs; 22. Cow Testing; 23. Prize Grain Distribution; 24. Publicity Associations; 25. Patriotism and Production Campaign; 26. Pure Seed Centres; 27. Live Stock Census; 28. Rural School Fairs.

One of the most striking illustrations of growth is to be found in the School Fair movement, as indicated by the following figures:—

	1913.	1914.	1915.
Number of fairs held.. . . .	69	148	234
Number of schools included.. . . .	531	1,391	2,291
Number of children represented.. . . .	....	....	48,386
Number of settings of eggs given out.. . . .	....	4,074	6,868
Number of plots.. . . .	....	23,872	51,234
Number of entries at fairs.. . . .	18,652	75,602	116,236
Number of persons attending fairs.. . . .	88,375	95,810	157,000

ONTARIO AGRICULTURAL COLLEGE.

New Buildings, \$74,340.

This year witnessed the completion of the new Physics Building at the Ontario Agricultural College, Guelph, making the third building provided for in this way since Dominion assistance was first given in 1912. The buildings previously erected were the Field Husbandry and the Poultry Building, and to these should be added the completion of the Dairy Barn and the reconstruction of the Bacteriological Building, the total expenditure to date from the grants in this connection amounting to the sum of \$222,236.

The new building is an imposing structure. Its purpose is to provide facilities for teaching and investigation work in soil physics, and it will form a very valuable addition to the equipment of the college. The building is a four-story, steel-framed structure, having a frontage of 101 feet 9 inches and a depth of 70 feet. The lower story is of stone, and the upper portion of red pressed brick with stone trim and slate roof. The partition walls are of tile. The floors of halls and stairways are of concrete or other fireproof material. The provision for heating, lighting and equipment of classrooms and laboratories is modern and up-to-date in all respects.

Salaries and Expenses, \$10,000.

The assistance given by the grant has enabled the Ontario Agricultural College to further extend and strengthen its staff of lecturers and demonstrators. During the period covered by the report, the above sum was expended on salaries and expenses of eleven members of the staff, comprising two assistants in soil and drainage, two lecturers in horticulture, two lecturers in poultry work, a lecturer in chemistry, a lecturer in geology and soils, a lecturer in animal husbandry, a lecturer in farm management, and an assistant in bee-keeping. In addition to giving instruction to the students, assistance is given in the special work being carried on in the respective departments such as soil and drainage survey work, short courses, fruit growing, bee-keeping and poultry demonstrations, as described in considerable detail in the report.

Salaries and Expenses, \$2,000.

Since the organization of the co-operation and markets branch in 1914, much painstaking work has been performed in gathering information as to the various co-operative organizations in the province with a view to obtaining a clearer know-

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ledge of their functions and the degree of efficiency with which their work is being carried on. It was felt that a complete survey of the field was essential before very much could be done in the way of giving assistance to existing organizations, or guidance in connection with new undertakings.

While associations of farmers having for their object the improvement of producing methods are numerous it is found that substantial and effective business organizations to undertake the marketing of farm products were very few in number, and that even the best of them left much to be desired.

The results of the inquiry lead to the belief that the time is ripe for concerted action looking to the formation of farmers' marketing associations, and it is the purpose and intention of the branch to assist, both in the reorganization of old societies and the formation of new ones, by giving instruction in (1) Methods of organization, (2) Basis of organization, (3) Business methods and practices. To this end a bulletin on organizing a co-operative marketing business has been issued.

During the past year, a number of fruit-growers' and other associations have been assisted to reorganize their business in older Ontario, while much effective work has been done in the newer districts. The Manitoulin Marketing Association, whose organization was assisted by the department, has been very successful in marketing wool, and will extend its business to include live stock and farm produce. The Rainy River Potato Growers' Association includes nearly all the farmers of the district in its membership, and a similar organization has been formed for Thunder Bay. Assistance has been given to the organization of seed centres for the production and sale of registered seed, while attention has also been devoted to the methods of marketing tender fruits and to the question of their wider distribution. In addition to the above, a monthly list of products offered for sale by co-operative associations is sent out to farmers' clubs and others, and has proved of great value. The cost of the work is met entirely from the Dominion grant, and amounts to date to the sum of \$10,266.

SHORT COURSES AND LECTURES.

Farmers' Institute Courses, \$5,588.

The Institutes Branch of the Ontario Department of Agriculture, co-operated with the thirty-three District Representatives in holding demonstrations in the judging of live stock during the winter months of 1915-16.

During the season, 1915-16, seventy-nine courses were held, occupying one hundred and fifty days. Besides, there were nineteen evening meetings held in conjunction with the courses. The total attendance at these courses was approximately 12,250. The classes of stock discussed by eighteen carefully selected, experienced live stock experts, were heavy and light horses, beef and dairy cattle, sheep, swine, and poultry. In addition to the live stock discussions, seed-judging was taken up by a qualified agronomy expert at several of the courses. All evening meetings, attended by mixed audiences, were devoted to discussions of live stock and other agricultural topics, while in many cases these meetings were also addressed by one of the many first-class Women's Institute speakers. The stock used for demonstrating at these courses was secured from local breeders and importers.

Demonstration Train.—In the autumn of 1915 a "Better Farming Special Train" was organized, and taken over the lines of the Canadian Pacific Railway in Ontario; over 15,000 attended the lectures and demonstrations given at each station at which the train stopped.

One car was devoted to each of the following branches of agriculture:—

1. Live stock.

2. A display of the most productive varieties of grains grown in Ontario, as well as illustrations of the advisability of early seeding, sowing plump grain, free from smut, etc.

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3. A drainage and lightning rod exhibit.
4. Appliances used by the up-to-date dairyman.
5. Miniature modern poultry houses, feeding troughs, etc., as well as samples of the most approved poultry foods. This department also carried specimens of the most desirable and undesirable types of poultry.
6. Specimens of the noxious weeds and weed seeds most commonly found on Ontario farms.

Each department was in charge of an expert, capable of giving valuable instruction to visitors. Up-to-date literature containing information on all branches of agriculture was distributed. Not only were the farmers invited to visit the train, but special invitations were sent to the school children through the school boards and teachers, and the instructors took pains to make their exhibits as instructive as possible to the great number of children who visited the coaches.

Arrangements were made through the local Women's Institute to hold afternoon meetings for women, these meetings being addressed by one of the Department's Women's Institute speakers. They also were largely attended. Joint meetings were held in the evening, when addresses were given by women speakers and some of the specialists accompanying the train. A leading feature of these evening meetings was moving pictures illustrating modern agricultural operations. These proved to be not only entertaining but highly instructive.

The expenditure in connection with Short Courses in Stock and Seed judging, and the running of a Better Farming Special were met, with the exception of about \$500, solely from the grant.

Judges' Short Courses, \$3,082.

Short courses of instruction for judges at fall fairs and at field crop competitions were conducted as in former years both at the Ontario Agricultural College, Guelph, and at the Central Experimental Farm, Ottawa. The attendance at each of these points during the past season was about 200. The cost of the work is defrayed by the grant, and includes the expenses of those in attendance, as well as the services and expenses of the instructors.

Short Courses at Ontario Agricultural College, \$2,148.

Provision is made under this head for meeting the travelling and living expenses of the winners of the Acre Profit and Live Stock Competitions for young men, held under the supervision of the District Representatives. Eighty-six winners were given free courses at the college in stock and seed judging during January, 1916.

Women's Institutes, \$4,202.

Practically the whole of the outlay in connection with the demonstration lecture courses held throughout the province under the auspices of the women's institutes, is met by the grant. The following is a summary of the courses held during the season of 1915-16:—

A.—Food values and cooking—	
Number taking course.. . . .	1,500
Aggregate attendance.. . . .	17,000
B.—Home sewing—	
Number taking course.. . . .	480
Aggregate attendance.. . . .	4,680
C.—Sewing—	
Number taking course.. . . .	225
Aggregate attendance.. . . .	2,245
Total number receiving instruction.. . . .	2,205
The—	

Every effort is made to make the courses as practical as possible, and emphasis is placed on efficiency and economy in the choice and preparation of foods, and in the choice and making of clothes. The interest shown by farm women in patriotic efforts received great stimulation through these courses. Many institutes have decided to devote their whole attention to such efforts while the war continues, and to discontinue the courses for the time being. At the present time the women's institutes, not only in Ontario, but of other provinces as well, are deeply engrossed in the making of supplies and the raising of money for the Red Cross, having responded most generously to the calls for their support.

INSTRUCTION AND DEMONSTRATION.

Drainage Work, \$6,190.

This work is under the direction of the Department of Physics at the Ontario Agricultural College, and, when necessary, assistance is lent by the district representatives. It includes the making of drainage surveys for farmers, demonstrations in tile draining, and the conducting of drainage demonstration plots. In the latter, half of the field is left undrained for comparison. Six more plots were started in 1915 and a demonstration was held in each, with an average attendance of seventy-six. This brings the total number of plots up to twenty-four. The season was unfavourable for the test, but partial returns, comprising fourteen plots, showed an average increase of \$4.40 in crop values over the undrained land. The experiment will continue for a period of years.

The following is a statement of the drainage work performed during the past three years. The cost of the work is borne jointly by the Dominion grant and the province.

SUMMARY OF SURVEY.

Year.	Applications.	Surveys.	Acres surveyed.	Miles of drain.	No.	Demonstrations average attendance
1913	290	247	13,705	1,713	56	20.3
1914	295	250	13,386	1,673	23	20.9
1915	291	263	15,336	1,917	8	12.8

Vegetable Growing, \$3,800.

The grant provides for the salary of the Vegetable Specialist and his assistant, travelling expenses and the expenses of the office, located at Toronto.

The work includes conferences with those engaged in the business of market gardening, addresses to agricultural classes, institutes and similar gatherings, correspondence and personal interviews, the carrying on of demonstration on a commercial basis and of experimental work with vegetable diseases and pests, such as Cabbage Root Maggot, Celery Blight. In connection with Celery Blight, fourteen demonstration plots were conducted, meetings held, and the results brought to the attention of growers all over the province. Most of the outside work is done in co-operation with the District Representatives.

Soils and Soil Survey Work, \$3,646.

Two lines of work are being carried on at the Ontario Agricultural College by this division of the Department of Chemistry. The first embraces a preliminary soil survey. The work of actual charting was begun in June and continued through the

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season. Eleven counties have been completed and the mapping done; five others are completed in part.

The second undertaking is the conduct of two demonstration plots on definite types of soil, one at Walsh, Norfolk county, on light sand, and another near the Cobourg on clay loam. At Walsh, where the sandy land was limed, manured and fertilized, the yield of potatoes was raised more than six-fold over the check plots, being more than 400 bushels per acre.

Other plots have been laid out and the material applied for an extensive experiment with different forms of lime materials on the acid, peaty soils of the Leamington marsh and on the heavy clay soils of Welland county.

Two new sources of potash are being studied in the fertilizer experiments, but conclusive results have not yet been arrived at.

The grant provides for the services of four demonstrators in this branch, together with expenses, supplies, equipment, etc.; also for a motor car to facilitate operations.

Fruit Demonstrations, \$3,052.

The work in this connection is conducted partly through the Department of Agriculture and partly by the Ontario Agricultural College.

During the season of 1915 the Department carried on extensive demonstrations of practical orchard methods in different parts of the province. This was very largely in five orchards, leased by the Department of Agriculture, and in a number of smaller orchards that were taken over simply for the season. In the leased orchards, which contain some 1,800 trees in full bearing, the entire work was undertaken, from the pruning in the spring to the marketing in the fall. These orchards were in most cases about the average of the province, that is, in a fair condition when taken over. To demonstrate just what results could be obtained, the trees were carefully pruned and thoroughly sprayed. Manure was shipped in from outside points and everything possible done to secure good crops of choice fruit. The results secured were far in advance of the expectations of the ordinary grower, and were verified by the best growers in each locality, who inspected them carefully. Very great interest is being taken in these orchards, particularly in Prince Edward and Lambton counties, meetings having been held in the orchard to show the growers of the neighbourhood the methods followed in looking after the trees.

In addition to the work in the demonstration orchards a very great deal of personal work has been done by the men working under this vote. The Department is prepared to send one of its demonstrators to any orchard in the province, where the owner has asked for advice. In many cases the owners of the orchards to whom representatives have been sent have gathered together a number of their neighbours so that all may take advantage of the information supplied.

At the College the work performed comes under the supervision of the Horticultural Department, and is carried on by G. J. Culham, B.S.A., Lecturer in Horticulture, and H. S. Fry, B.S.A., Lecturer in Pomology, two of the lecturers provided by the grant. The work comprises co-operative orchard experiments conducted over a series of years in summer pruning of the Spy apple to hasten bearing, and the top-grafting of the Ben Davis to better varieties, and root pruning. Thirteen experiments are under way.

The cause and prevention of winter injury to apple trees were also investigated in view of the numerous cases of injury reported. Assistance was also given to beginners in fruit growing in Northern Ontario, and much information gathered, which is of great value to settlers seeking advice.

The lecturer in Pomology takes entire charge of the First and Second Year Classes in Fruit Growing, and also of the fruit work of the graduating classes in Horticulture.

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Bee-Keeping, \$1,756.

The expenditure under this head is supplementary to the outlay by the Department of Agriculture, the amount provided from the grant during the year being \$1,755.71. This branch of work is carried on from the Ontario Agricultural College, where the officer in charge also acts as lecturer. The grant provides for the services and expenses of a number of students who act as demonstrators and instructors. An educational campaign is being pursued, and sixty demonstrations were held during the season with a total attendance of nearly two thousand. Bee-keepers all over the province look to the College for information and assistance in their work.

Canning Investigations, \$1,631.77

Acting on the recommendation of the Advisory Board of the Horticultural Experiment Station at Vineland, Ontario, a specialist has been appointed to carry on investigations in canning operations, and as to the disposal of the surplus products of the orchard and garden. Perhaps the most valuable part of the work hitherto performed relates to the canning of fruits and vegetables. To this end the small canning plant that had been provided out of provincial funds was supplemented by the equipment of a testing laboratory, the cost, together with the salary of the specialist in charge, being met out of the grant. All kinds of fruits and vegetables are being canned at this plant. Records are kept by varieties as to the qualities produced and their keeping qualities under different methods of treatment. Varieties are also tested to prove their value under canning factory conditions, with a view of recommending both to canners and growers just what varieties should be grown for this particular industry. Mr. Culverhouse, who has charge of the plant, was instructed by the Department, since the war, to can as much fruit as the plant would handle in order to supply the hospital demand. During the past season 30,000 pounds of jam and over 30,000 gallon cans of peaches and other fruit were put up. While work of this kind was never contemplated on anything approaching this scale, it has nevertheless resulted in giving the superintendent a very wide experience in the processing of the different fruits.

Other investigations have included the making of cider and vinegar, and bulletins have been issued describing the methods employed.

ELEMENTARY AGRICULTURE INSTRUCTION IN SCHOOLS, \$20,347.

In the province of Ontario, grants in aid of Agricultural Education are awarded both to schools and to teachers qualifying for same under the regulations of the Education Department.

In the case of High Schools, Continuation Schools and Collegiate Institutes, where the prescribed courses are carried out, a grant not exceeding \$100 is made to the board, but further grants of bonuses are made to the teachers conducting such courses, the amount being determined by their professional qualifications. In cases where such schools conduct experimental and demonstration plots in the school grounds in connection with class-room and laboratory instruction, the teacher receives a further supplementary bonus. The bonuses to teachers in schools of this class range from \$30 to \$120, the latter being paid to the holder of a high school professional certificate and the degree of B.Sc. (Agr.) who carries on courses extending throughout the year.

In the case of Public and Separate Schools the grants are on a similar basis, namely, to the Board and to the teacher. The requirements are the carrying out of the specified course of instruction, the conducting of Home and School Gardens, and planting and caring for the school grounds. The teachers' bonuses are determined by their professional qualifications, and by the length of the period during

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which instruction is given. Boards receive grants ranging from \$10 to \$30; teachers holding Elementary Agricultural certificates receive bonuses ranging from \$12 to \$30. Those not certificated in Agriculture receive a bonus of from \$5 to \$15.

The grants and bonuses referred to are provided out of the Dominion grant, and the total amount so disbursed amounted for the year to \$14,382.

The following statement gives the number of schools of all classes qualifying for grants during the period 1913-16:—

	1913.	1914.	1915.	1916.
High schools, Collegiate Institute and Continuation schools.. . . .	2	11	15	21
Public and Separate schools.. . . .	159	268	407	—

Of the 407 Public and Separate Schools qualifying in 1915, 222 conducted school gardens and 185 home gardens.

To prepare teachers to teach agriculture, and to qualify inspectors for the work of supervision, the following special courses are provided:—

(1) A summer school for public and separate school teachers, held during July at the Ontario Agricultural College, and leading to an elementary certificate in agriculture. The work prescribed covers sessions at the college in two consecutive years with a winter reading course between.

(2) A summer school for high school teachers, held at the Ontario Agricultural College during July. The course extends over two consecutive sessions, and leads to an intermediate certificate in agriculture qualifying the holder to teach the subject in continuation schools, high schools, and collegiate institutes.

The numbers in attendance at the summer schools in the years stated were as follows:—

	Public School Teachers.	High School Teachers.
1914—		
First year.. . . .	11	16
Second year.. . . .	11	16
1915—		
First year.. . . .	11	18
Second year.. . . .	11	16
1916—		
First year.. . . .	11	18
Second year.. . . .	11	15

In 1915, a course of two weeks' duration was provided for school inspectors at the college. Practically all the inspectors in the province attended.

The certificates above referred to are awarded by the Department of Education, but the instruction is given by members of the college faculty. The expenses of the students and of the courses are met by the grant.

In addition to the above, a degree B.Sc. (Agr.) is now given to students who complete two years in certain prescribed work in one of the universities of Ontario, followed by two years at the Agricultural College, the object being to provide highly qualified teachers of agriculture. Owing to war conditions, the recency of the establishment of this degree, and the yet undeveloped state of public opinion, there have not, hitherto, been many candidates.

It should be observed that, in addition to the special teachers' courses at the Ontario Agricultural College, the Education Department makes provision for a course of study in agriculture, with examinations, at the provincial normal schools. At these schools teachers-in-training may fit themselves for teaching subjects related to farming, nature and rural life, and it is from this source that those who hereafter qualify for teaching work will receive their agricultural training.

APPOINTMENTS PROVIDED BY THE DOMINION GRANT.

(A.) *Officers regularly employed, whose salaries are paid wholly from the Agricultural Instruction Grant:*

ONTARIO AGRICULTURAL COLLEGE, GUELPH.

Lecturer in Poultry, F. N. Marcellus, B.S.A.
 Lecturer in Farm Management, A. Leitch, B.S.A.
 Lecturer in Rural Sociology, A. McLaren, B.S.A.
 Lecturer in Geology and Soils, John Woodward.
 Lecturer in Physics, J. R. Spry, B.S.A.
 Soil Analyst, S. R. Curzon, B.S.A. --
 Demonstrator in Horticulture, H. S. Fry, B.S.A.
 Demonstrator on Chemistry, W. L. Iveson, M.A.
 Lecturer in Animal Husbandry, J. P. Sackville, B.S.A.
 Poultry Specialist, J. P. Hales, B.S.A.,
 *Horticulturist, G. J. Culham, B.S.A.
 Assistant in Soil Work, F. Bryant.
 Assistant in Drainage Work, A. E. McLaurin.

DEPARTMENT OF AGRICULTURE, TORONTO.

Vegetable Specialist, S. C. Johnston, B.S.A.
 Stenographers, two.
 Director, Co-operation and Markets Branch, F. C. Hart, B.S.A.
 Stenographer, Markets Branch, Miss Reid.

HORTICULTURAL EXPERIMENT STATION, VINELAND, ONT.

Assistant Experimentalist, P. E. Culverhouse, B.S.A.
 In Charge Fruit Extension Work, O. J. Robb.
 Official Butter Grader, J. H. Scott.

DEPARTMENT OF EDUCATION, TORONTO.

Director of Elementary Agricultural Education, Dr. J. B. Dandeno, Teacher of Domestic Art, Miss A. E. Robertson.

(B.)—*Officers, regularly employed, whose salaries are paid in part from the Grant.*

DEPARTMENT OF AGRICULTURE, TORONTO.

45 District Representatives.

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COMPARATIVE STATEMENT of Expenditure of Provincial Funds for Agricultural purposes for the years 1913, 1914, and 1915, and estimated Expenditure for 1916.

Service.	1913. To Oct. 31.	1914. To Oct. 31.	1915. To Oct. 31.	1916. To Oct. 31. (Estimated).
Department of Agriculture—	\$ cts.	\$ cts.	\$ cts.	\$ cts.
Salaries; Contingencies; Incidentals and Miscellaneous	98,398 79	100,772 85	98,021 72	126,539 18
County Representatives	40,595 08	39,668 93	35,917 01	80,000 00
Live Stock Interests—				
Grants and Winter Fairs; Grants to Poultry Association and Horse Shows; Stallion Registration; Sheep Experiments, etc.; Spring Shows.....	38,793 66	38,563 78	43,079 35	60,132 52
Dairy Interests—				
Grants; Instruction and Inspection; Dairy School; Miscellaneous.. ..	38,574 35	38,701 00	54,004 80	62,712 70
Agricultural and Horticultural Societies—				
Insurance; Field Crop Competitions and Judges; Expert Judges; Exhibitions; Special Grants.	129,475 08	125,548 19	123,867 11	172,204 00
Institute—Farmers and Women's	32,932 25	27,323 52	23,187 08	31,000 00
Fruit Interests—				
Grants; Spraying Assistance; Special Crop Experiments; Cold Storage Experiments and Exhibits; San Jose Scale; Horticultural Experiment stations; Apiary Inspection; Demonstration Work	45,454 87	54,894 72	44,013 00	75,508 25
Ontario Veterinary College—				
Salaries and Expenses	32,929 74	35,289 22	98,082 10	42,000 00
Ontario Agricultural College, Macdonald Institute, and Ontario Experimental Farm—				
Salaries and Expenses	294,448 50	284,207 80	296,314 04	396,441 00
Total	741,079 87	771,811 86	770,494 30	908,129 00
Revenue	177,131 50	157,144 89	168,006 16	
Net total	564,389 37	614,666 97	602,488 14	

Note.—The above statement does not include expenditure under colonization, factory inspection and stationary engineers' branches.

In 1915 the Department of Education expended \$47,377 in connection with agricultural education. Of this sum \$39,225 went towards the cost of the work of the district representatives. In 1916 this was assumed by the Department of Agriculture, while the balance of the expenditure for this purpose was met from the federal grant.

ONTARIO.

GRANT 1915-16, \$266,013.64.

SUMMARY STATEMENT, April 1, 1915, to March 31, 1916.

No.	Classification.	Grant 1915-16.	Balance April 1, 1915.	Total.	Expended to Mar. 31, 1916.	Balance on hand Mar. 31, 1916.
1.	District representatives.....	\$114,000 00	\$ 402 86	\$114,402 86	\$110,555 76	\$ 3,847 10
2.	Ontario agricultural college.					
	(a) Capital.....	81,413 64	20,604 48	102,018 12	74,340 39	27,677 73
	(b) Salaries and expenses.....	12,400 00		12,400 00	10,021 32	2,378 68
3.	Short courses, O. A. C.....	1,500 00	763 51	2,263 51	2,148 28	115 23
4.	Agriculture and domestic science in schools.....	20,000 00	11,954 67	31,954 67	20,346 66	11,608 01
5.	Marketing of farm products.....	6,000 00	1,279 25	7,279 25	5,045 58	2,233 67
6.	Stock and seed judging:					
	Institute short courses; lectures	6,560 00	3,618 66	10,118 66	5,588 07	4,530 59
7.	Women's institutes.....	2,000 00	7,806 87	9,806 87	4,761 60	5,045 27
8.	Judges' short courses.....	3,000 00	709 15	3,709 15	3,281 56	427 59
9.	Drainage work.....	6,200 00		6,200 00	6,189 66	10 34
10.	Demonstrations in vegetable grow- ing.....	3,000 00	838 28	3,838 28	3,799 91	38 37
11.	Demonstrations on soils.....	2,000 00	1,645 67	3,645 67	3,645 67	
12.	" " fruit.....	4,000 00	3,349 52	7,349 52	3,052 10	4,297 42
13.	" " bee-keeping.....	1,500 00	308 02	1,808 02	1,755 71	52 31
14.	Horticultural experiment station ..	2,500 00		2,500 00	1,631 77	868 23
	Totals.....	\$266,013 64	\$53,280 94	\$319,294 58	\$256,164 06	\$ 63,130 54
	Additional from 1914-15.					
	Lectures on Horticulture		433 45	433 45	209 25	224 20
	Demonstrations in live stock and poultry		3,097 80	3,097 80	1,027 2	2,070 60
	Miscellaneous.....		4,795 97	4,795 97	1,132 97	3,663 00
	Totals	\$266,013 64	\$61,658 16	\$327,621 80	\$258,533 46	\$ 69,088 34

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DETAILS OF EXPENDITURE, APRIL 1, 1915, TO MARCH 31, 1916.

1. DISTRICT REPRESENTATIVES.

Grant 1915-16.....	\$114,000 00	
Balance April 1, 1915.....	402 86	
Expended to March 31, 1916.....		\$110,555 76
Balance on hand March 31, 1916.....		3,847 10
	<u>\$114,402 86</u>	<u>\$114,402 86</u>

Brant.....	\$2,223 82
Bruce.....	2,387 49
Carleton.....	2,284 16
Dufferin.....	2,013 86
Dundas.....	2,219 23
Durham.....	2,601 35
Elgin.....	2,349 05
Essex.....	2,787 18
Frontenac.....	2,187 06
Ft. William.....	1,019 71
Grenville.....	858 71
Glengarry.....	3,289 35
Gore Bay.....	2,735 63
Grey.....	3,066 02
Halton.....	2,674 27
Hastings.....	1,963 90
Haldimand.....	2,680 97
Kenora.....	3,308 17
Kent.....	2,839 71
Lambton.....	2,912 85
Lanark.....	3,250 93
Leeds.....	3,759 03
Lennox and Addington.....	3,657 65
Middlesex.....	3,433 17

Carried forward \$62,520 27

Brought forward.....	\$62,520 27
Muskoka.....	1,561 95
Miscellaneous.....	4,241 82
New Liskeard.....	1,540 11
Northumberland.....	2,491 88
Norfolk.....	1,669 89
Ontario.....	2,389 31
Oxford.....	3,041 17
Prince Edward.....	2,358 59
Port Arthur.....	1,654 73
Peterboro.....	2,126 65
Peel.....	2,932 51
Rainy River.....	2,960 23
Renfrew.....	2,487 75
Sault Ste. Marie.....	1,841 14
Simcoe.....	2,803 83
Sudbury.....	1,519 08
Victoria.....	2,524 07
Waterloo.....	1,782 58
Welland.....	1,692 71
Wentworth.....	2,701 02
York.....	2,292 47

Less refunds..... 573 00

\$110,555 76

2. ONTARIO AGRICULTURAL COLLEGE.

(a) Capital Expenditure.

Grant 1915-16.....	\$ 81,413 64	
Balance April 1, 1915.....	76,074 40	
Expended to March 31, 1916.....		\$ 74,340 39
Balance on hand March 31, 1916.....		27,677 73
Total.....	<u>\$102,018 40</u>	<u>\$ 102,018 72</u>

Poultry building—		
Material.....	\$ 1,322 52	
Labour.....	494 00	\$ 1,766 52
Biological building—		
Material.....	1,400 83	
Labour.....	811 41	\$ 2,212 24
Physiology building—		
Material.....	10,244 10	
Contracts.....	5,277 05	
Furnishings.....	5,247 52	
Labour.....	10,244 10	
Contingencies.....	1,772 13	
\$ A. Armstrong, accountable.....	1,000 00	\$ 22,485 80
To complete buildings at O. A. C.—		
Material.....	1,400 83	
Labour.....	494 00	
Furnishings.....	5,247 52	
Contingencies.....	1,772 13	

\$ 2,995 44

\$ 75,080 08

144 60

Total.....

\$ 10,244 10

(b) *Salaries and Expenses of Additions to Staff.*

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The office of Field Agent was abolished in September, 1915, and the regular inspectors now have supervision of the agricultural instruction in their inspectorates.

Miss A. E. Robertson was appointed in September, 1915, at a salary of \$1,500 a year to the new position of Teacher of Sewing in the Department of Household Science of the University of Toronto, for candidates for specialist and ordinary certificates granted by the Department of Education. Her salary for the months of January and February, 1916, is charged to the grant.

Printing and Advertising.—Included under this head are 5,000 pamphlets, "School Division, Experimental Union," and printing instruction leaflets, Nos. 7, 8, 9, 10, 11.

Seeds, etc.—This charge includes seeds supplied, and services performed in preparing seeds for School Division of Ontario Agricultural and Experimental Union, Guelph.

5. MARKETING.

Grant, 1915-16..	\$	6,000 00		
Balance April 1, 1915..		1,279 25		
Expended to March 31, 1916.. . . . .		.....	\$	5,045 58
Balance on hand March 31, 1916.. . . . .		.....		2,233 67
Total..	\$	7,279 25	\$	7,279 25

F. C. Hart, Director, services and expenses..	\$	2,740	71
T. D. Jarvis, assistant, " " " " " " " " " " " " " " " "		157	65
J. B. Fairbairn, " " " " " " " " " " " " " " " "		1,188	47
Stenographer..		600	00
Equipment and supplies..		313	61
Stationery, postage, incidentals..		220	14
	\$	5,220	58
Less refunds..		175	34
Total..	\$	5,045	58

6. *Shen, X. and S. J. Shen* (2003) *Asymptotic Normality of the Likelihood*.

Grant, 1915-16..	\$	6,500	00	
Balance April 1, 1915..		3,618	66	
Expended to March 31, 1916..				\$ 5,588 07
Balance on hand March 31, 1916..				1,030 41
				<hr/>
Total..	\$	10,118	66	\$ 10,118 66

Services and expenses of instructors—

J. A. Sinclair.. . . .	\$	142	85
W. H. Smith.. . . .		14	85
C. E. Bain.. . . .		74	90
G. Harter.. . . .		41	90
G. A. Brethour.. . . .		35	90
J. Gardhouse.. . . .		146	90
W. J. Gardhouse.. . . .		146	90
A. C. Hollenberry.. . . .		166	40
H. H. Harding.. . . .		147	50
A. Laidley.. . . .		147	50
R. D. MacMurtrei.. . . .		24	90
L. M. McCallum.. . . .		24	40
L. C. Yarbrough.. . . .		24	40
H. C. Nixon.. . . .		147	50
H. G. Good.. . . .		147	50
L. P. Mackertich.. . . .		147	50
E. Schuler.. . . .		147	50
H. Schuyler.. . . .		147	50
W. H. Scott.. . . .		147	50
G. L. Woltz.. . . .		145	10
W. M. Chisholm.. . . .		147	50
H. M. Chapman.. . . .		147	50
M. Yates.. . . .		105	50
S. Campbell.. . . .		100	75

6. STOCK AND SEED JUDGING, ETC.—*Concluded.*

Services and expenses of instructors— <i>Concluded.</i>		
F. Forsyth.. . . .	\$ 243 54	
A. W. Peart.. . . .	13 50	
I. B. Martin.. . . .	23 80	
M. V. Powell.. . . .	42 50	
C. Gantby.. . . .	34 10	
E. G. Rowley.. . . .	22 55	
J. W. Clark.. . . .	102 45	
H. M. Robinson.. . . .	40 15	
F. N. Marcellus.. . . .	5 25	
H. M. King.. . . .	13 05	
		\$ 3,521 84
Rent of stock.. . . .		133 50
Freight and express.. . . .		50 17
Rent of halls, tents, etc.. . . .		216 41
Livery.. . . .		76 20
Printing and advertising.. . . .		942 33
Labour, cartage and supplies.. . . .		826 66
Postage.. . . .		235 13
		\$ 6,002 24
Less refunds.. . . .		414 17
Total.. . . .		\$ 5,588 07

7. WOMEN'S INSTITUTES.

Grant, 1915-16.. . . .	\$ 2,000 00	
Balance April 1, 1915.. . . .	7,806 87	
Expended to March 31, 1916.. . . .		\$ 4,761 60
Balance on hand March 31 1916.. . . .		5,045 27
Total.. . . .	\$ 9,806 87	\$ 9,806 87

Lecturers, services and expenses—		
N. H. Altenburg.. . . .	\$ 605 78	
E. Chapman.. . . .	167 50	
E. M. Collins.. . . .	435 24	
G. Gray.. . . .	479 22	
H. I. Jobb.. . . .	143 80	
E. McKay.. . . .	623 01	
B. McDermand.. . . .	255 43	
O. Hayes.. . . .	75 00	
G. Conover.. . . .	131 65	
E. Campbell.. . . .	75 00	
M. L. Woelard.. . . .	343 85	
M. I. Foote.. . . .	262 80	
M. M. Smith.. . . .	30 00	
D. Miller.. . . .	30 00	
H. Willett.. . . .	100 00	
E. W. McClure.. . . .	53 74	
R. Black.. . . .	404 15	
E. McCausland.. . . .	25 75	
N. M. Steele.. . . .	177 00	
C. T. Black.. . . .	354 75	
Printing, advertising and contingencies.. . . .	80 93	
		\$ 4,854 60
Less refund.. . . .		93 00
Total.. . . .		\$ 4,761 60

8. SHORT COURSES FOR JUDGES.

Grant, 1915-16.. . . .	\$ 3,000 00	
Balance April 1, 1915.. . . .	709 15	
Expended to March 31, 1916.. . . .		\$ 3,281 56
Balance on hand March 31, 1916.. . . .		427 59
Total.. . . .	\$ 3,709 15	\$ 3,709 15
Sundry persons, services.. . . .		\$ 167 50
“ “ expenses.. . . .		3,114 06
Total.. . . .		\$ 3,281 56

9. DRAINAGE WORK.

Total..	\$	6,200	00	\$	6,200	00
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Total..	\$ 6,113 73
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Total	\$ 3,538 28	\$ 3,538 28
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Total.. .. .	\$	3,799 91
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Total..	\$	3,645	67	\$	3,645	67
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Total	9,000.00
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12. FRUIT DEMONSTRATION.

Grant, 1915-16..	\$	4,000	00		
Balance April 1, 1915..		3,349	52		
Expended to March 31, 1916..		\$	3,052 10
Balance on hand March 31, 1916.. . . . .		.....			4,297 42
Total..	\$	7,349	52	\$	7,349 52

C. J. Culham, Instructor, expenses..	\$	266	85
H. S. Fry, " "		200	00
W. F. Kydd, " "		626	54
W. L. Hamilton, " "		206	30
O. J. Robb, Fruit Specialist, expenses..		1,108	75
L. Smith, Instructor, services and expenses..		81	95
Supplies, labour, board..		626	58
Cartage, express, freight..		35	13
	\$	3,152	10
Less refund..		100	00
Total..	\$	3,052	10

Messrs. Culham and Fry are members of the Agricultural College staff; their services are paid under section 2b. Messrs. Kydd, Hamilton and Robb are employed by the Department of Agriculture and do no college work.

13. DEMONSTRATION IN BEE-KEEPING.

Grant, 1915-16..	\$	1,500	00		
Balance April 1, 1915..		308	02		
Expended to March 31, 1916..				\$	1,755 71
Balance on hand March 31, 1916..					52 31
Total..	\$	1,808	02	\$	1,808 02

Students and Instructors, services and expenses—

Jas. Armstrong..	\$	69	70
J. Barlow..		68	02
J. Coburn..		5	50
A. Dennison..		137	40
J. C. Duff..		53	05
J. F. Dunn..		36	65
R. A. Fowler..		12	20
R. C. Fretz..		63	20
W. F. Geddes..		114	00
M. B. Holmes..		19	00
R. M. Hunter..		32	40
G. T. Kingsmill..		494	50
J. H. McCauley..		457	45
M. Pettit..		59	20
N. Robertson..		63	85
J. S. Schrank..		38	50
W. Scott..		117	44
W. H. Selwyn..		22	95
S. A. Stewart..		228	05
W. A. Weir..		43	60
J. T. Wilson..		14	05
Total..	\$	1,755	71

14. HORTICULTURAL EXPERIMENT STATION.

P. E. Culverhouse, Special Hypatics, services and expenses..	\$	805	17
Supplies and equipment..		772	83
Express, freight, incidentals..		53	77
Total..	\$	1,631	77

G. J. Christie, Lecturing, services and expenses.. . . .	\$	109	50
Geo. Harris, services caring for live stock.. . . .		3	50
J. O. Laird, services and expenses, lecturing.. . . .		4	00
W. Redpath, services and expenses re moving pictures.. . .		39	50
V. M. Shoesmith, services and expenses lecturing.. . . .		54	00
Sundry persons, " " " "		115	25
A. Maclaren, services and expenses as lecturer on Rural Sociology at O. A. College Conference for Rural Leaders.. . . .		375	00
Moving picture films and supplies.. . ,		359	45
Freight and express..		39	00
Incidentals..		23	77
Total..	\$	1,132	97

The expenditures for motor pictures provided equipment and operating expenses for the equipment purchased in the year previous. The outfit was operated in connection with the "Better-Farming Special" previously described.

Instructors, services..	\$	117	36
" expenses..		21	90
Total..	\$	138	26

The above expenditures were an account of the 1914-15 grant, and is dealt with in the report on the Instruction Act for that year.

QUEBEC.

AGREEMENT, 1915-16.

1. Poultry..	\$15,000 00
2. Arboriculture, fruit growing..	33,000 00
3. Bacon..	12,000 00
4. Schools of agriculture..	60,000 00
5. Agricultural teaching in academies, rural and normal schools..	8,000 00
6. District representatives, agricultural teachers, Agronomist..	12,000 00
7. Experimental union..	2,000 00
8. Alfalfa and clover..	4,000 00
9. Seed selection..	4,500 00
10. Bee-keeping..	9,000 00
11. Tobacco..	3,500 00
12. Dairying..	25,000 00
13. Drainage..	3,000 00
14. Domestic science..	10,000 00
15. Maple sugar industry..	4,000 00
16. Conferences, publications, etc..	10,310 70
Total..	<u>\$215,310 70</u>

The grant to the province of Quebec, provided by the Agricultural Instruction Act, is expended mainly under three divisions. First, to promote undertakings carried out through the Provincial Department of Agriculture; second, to contribute to the funds of colleges and schools of agriculture, and, third, to advance agricultural teaching in rural schools and instruction in household science in the convent and normal schools.

In making a general survey under these three headings of the work carried on, it will be found that the projects coming under the direct auspices of the Provincial Department may, speaking generally, be regarded either as field demonstration, oral instruction, or, as is most often the case, a combination of instruction and demonstration. An example of the first will be found in the demonstration orchards, in the alfalfa and clover plots and in the operation of ditching machines in connection with under-drainage; of the second, in the short courses provided for farmers and farmers' sons, and of the third, in the school of instruction in bacon-curing and general abattoir work, as well as in the maple sugar-making schools.

In an effort to stimulate the raising of hogs and the production of bacon, a Danish expert has been employed and a building provided and equipped to give detailed instruction in bacon-curing and general abattoir methods. In connection with the effort being made to raise the standard and increase the supply of maple products, for which the province is noted, four schools have been provided at which instruction is given in up-to-date methods. In the interest of horticulture the province has received very considerable aid. Not only has a provincial entomologist been provided, but a fruit branch of the department at Quebec has been organized, mainly with the funds derived from the grant, while the cost of operating demonstration and experimental orchards and the establishment of a nursery for introducing suitable varieties of fruit is being met in this way.

The same is true of the poultry demonstrations scattered over the province, the tobacco-growing and curing demonstrations and the work of apitary inspection, coupled with instruction in the keeping of bees free from disease.

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In various other forms of demonstration the grant has been of great assistance. It has been drawn upon to assist the pure-seed propaganda, including the operation of clover-hullers, leading to a numerous introduction of these machines and a great increase in the supply of home-grown seed.

Dairying is the leading branch of agriculture in Quebec, and the province has been relieved to a considerable extent of the cost of the work of inspection in cheese and butter factories. The advance in the quality and quantity of the output is noteworthy, due largely to the improvement that has taken place in methods of production and manufacture.

The introduction of the district representative system has been brought about by means of the grant. The number of district agronomists employed among the French population has been increased from six to twelve, with five assistants. The scope of their work includes the supervision of farmers' organizations, advising with farmers, the promotion of demonstrations and of school garden and school fair work, and the carrying on of short courses for farmers.

The grant also contributes to the issue of bulletins on many of the topics referred to, and also to the cost of making educational displays at exhibitions.

Turning to the schools and colleges of agriculture it will be found that, both at the Agricultural Institute at Oka and the School of Agriculture at Ste. Anne de la Pocatière, the student capacity has been extended and other financial assistance has also been given in the way of increased salaries for the teaching staffs and towards equipment and maintenance. Each school is to receive \$50,000 to cover the cost of building extensions, to be paid from the grant in yearly instalments.

By means of the grant Macdonald College has been enabled not only to increase its teaching staff, and to extend its investigation and research work, but also to carry on various demonstrations among the English-speaking community, embracing among other activities, sheep husbandry, poultry-keeping and orchard management. Assistance has also been given to college extension work, including homemakers' clubs, short courses and the training of teachers in agriculture.

A considerable share of the grant has been employed to promote instruction in household science, and in providing normal school students with the training necessary to enable them to give agricultural instruction through garden and class-room work. The teaching of household science in 47 convent schools and 2 normal schools is supervised, and special grants are made to these institutions, to assist this department of instruction, which includes such outdoor phases as gardening, bee-keeping, and orchard, dairy and poultry work. A special course is offered at the normal schools to convent teachers in household science.

The Assistant Commissioner of Agricultural Instruction for the Province of Quebec, Dr. J. C. Chapais, makes the following report on the work carried on during the year through the Quebec Department of Agriculture:

Poultry Industry, \$19,425.

Instruction in poultry raising was given by means of lectures or practical demonstrations at twenty-eight breeding and fattening stations, in forty-nine normal and domestic science schools, and also in connection with co-operative incubator stations. In the majority of cases, the department rents the land, buildings and implements used, on a basis of about 10 per cent of the total value, said rent not to exceed \$100. A manager takes charge of two or three stations, and is assisted by the proprietor, who receives a small bonus for his work together with whatever profits accrue from operations. At all stations practical instruction is given in candling eggs, and in caponizing, killing, dressing and packing poultry for market. District representatives conducted poultry exhibits at school fairs in eleven counties.

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Fruit Culture, \$28,240.60.

This work is conducted under four divisions, (1) Demonstration Orchards, (2) Experimental Fruit Stations, (3) Experimental Fields and (4) Horticultural Societies.

1. Demonstration Orchards: Five orchards in the western district, chiefly Fameuse apples, were taken over by a committee of the Quebec Pomological Society, with Prof. W. Saxby Blair, of Macdonald College, at its head, in order to demonstrate proper methods of spraying and cultivation. Twenty-six acres of orchard are included in this undertaking. The work has been very beneficial in its results. At Abbotsford where farmers were ready to abandon their orchards, a strong co-operative fruit organization has been formed, and planting is being extended. At Abbotsford and Hawkeby a number of power spraying outfits have been purchased. Results in other districts are also encouraging, although for various reasons, not so marked as in the two already mentioned.

(2) Experimental Stations and Fields: The number of stations was reduced to twenty-eight this year, being eight less than the year previous, whereas the experimental fields were increased from eighteen to thirty, as better results are anticipated from them than from the Stations discontinued. Both stations and fields are provided with trees for planting and with whatever is necessary in the way of supplies.

(3) Horticultural Societies: These form a medium for the distribution of fruit trees as premiums with the object of encouraging the planting of domestic orchards. During the year 6,000 trees were distributed and planted, having been sold to the societies at cost price by the department. These the Berthier nursery, now being established, will shortly be able to supply. Ten instructors were sent out to give instruction in planting, pruning and spraying to members securing trees by this means.

Fruit displays were prepared by the department for the various agricultural exhibitions throughout the province, and numerous lectures and demonstrations were held during the year.

Bacon Industry, \$19,040.

The major portion of the year's expenditure has been for the extension and fuller equipment of the abattoir at St. Valier, the total charge against the Instruction Act since 1913 having been \$18,262 for this purpose. The capacity of the plant has now been increased from 15 to 60 hogs a day.

The work is in charge of A. Hansen, a Danish bacon expert. Practical courses are given to students and, in addition, many farmers have been given instruction in the raising, feeding, killing and dressing of hogs, beef-cattle, calves, sheep and poultry, and valuable work in the promotion of the live stock industry is carried on. A new departure has been the organization of a hog-fattening competition among farmers' sons.

In the spring of 1916, the Provincial Department transferred the direction of the establishment to the Quebec Cheesemakers' Co-operative Society, an institution which is rapidly taking the lead in the commercial handling of the dairy, meat and poultry products of the province.

Agricultural Instruction in Academies and Schools, \$10,224

Of this sum, \$5,219 was expended in connection with special courses for public school teachers at Ste. Anne de la Poutrière, the Oka Institute and Macdonald College, and \$3,023 for special lecturers appointed by the department to lecture on agriculture, horticulture and domestic science in the academies and colleges of the province. One lecturer, M. Pabbe A. Michon, President of the Quebec Agricultural Missionaries, delivered seventy lectures of this character during the year.

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The balance of the appropriation was devoted chiefly to the school garden and school fair promotion, together with the cost of printing instructional pamphlets. During the year, 759 school gardens were carried on, with over 19,000 children engaged either at home or at school. The children's clubs established numbered 305, and 228 teachers signified their intention of making school exhibits in 1916. In this work the district representatives rendered great assistance.

District Representatives, \$14,774.

No important changes were made in this work during the period covered, although plans are being devised to increase the number of representatives from six to twelve, and the assistant representatives from two to five. The importance of giving instruction to settlers in new districts has been recognized by the appointment of a representative in the Abitibi country, recently opened for colonization. There the work performed included lectures on clearing, breaking and ploughing and the operating of demonstration plots.

Quebec Experimental Union, \$2,500.

This organization receives an annual grant of \$2,500 from the allotment to the province. The work carried on included experiments with alfalfa (250 pounds of seed distributed), experiments in methods of couch-grass eradication, and experiments with bees and poultry. In the latter, the colony-house system was made the feature.

With a view to qualifying the students of the Quebec Normal School to teach agriculture a tract of land located near the school is operated as a basis for demonstration lectures. The publicity work carried on included representation at exhibitions, lectures, correspondence and pamphlet distribution.

Alfalfa and Clover Demonstration, \$3,995.

Thirty-four clover demonstration plots were conducted, and two clover-hulling machines were demonstrated at ten points, hulling 18,500 pounds of seed and cleaning 7,340 pounds. It was estimated that sixty privately-owned hullers would operate in the province during the season, and that, as a result, 400,000 pounds of seed would be secured. For the information of growers, a booklet on clover was compiled and 10,000 copies issued.

Seed Selection, \$5,956.

The expenditure covers services and expenses of travelling instructors and lecturers to promote seed selection work among the farmers, and to oversee the work conducted by members of the Seed Growers' Association.

A two-day exhibition of seeds and grains is held at Quebec in January of each year under the auspices of the Provincial Department. Seven hundred competitive exhibits were made, and a competition in seed-grain judging among farmers' sons was conducted.

Apiculture, \$8,996.

This division of the grant provides the salaries and expenses of apiary inspectors and their assistants, together with the supplies and equipment used in the performance of their work. These men inspect for foul brood and instruct bee-keepers in the treatment of this disease.

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Dairying, \$29,541.

Apart from a grant of \$2,000 made in 1915 to the Dairy School at St. Hyacinthe, the whole of this appropriation is devoted by the Provincial Department to the inspection services for cheese and butter factories.

Under the Dairy Act of 1915, the province was divided into fifty districts, with an average of about 42 factories to each district. The inspection service includes two general inspectors, five assistant general inspectors and fifty local inspectors, by whom weekly reports are submitted. Inspectors are required to hold diplomas as cheese and buttermakers, and to test milk and cream to the satisfaction of the Board of Examiners of the Dairymen's Association. Each year or so they spend a few days at the St. Hyacinthe Dairy School to keep in touch with modern methods. It is anticipated that this work will speedily lead to further improvement of methods of milk production and manufacture, thus promoting the progress of the industry.

Drainage, \$7,675.

The two ditching machines purchased in 1912 were continued in operation. During the year, 21,075 feet of ditch were excavated on the farms of the St. Paschal Normal School of Domestic Science and of the Ste. Anne de la Pocatière Agricultural School. The second machine excavated 29,900 feet in Huntingdon county. Other work performed was that of surveying land, preparing plans and addressing gatherings of farmers interested in drainage.

Domestic Science, \$13,490.

The number of schools in the province giving domestic science courses increased from forty-five to forty-nine during the year, all being convent schools except two. Instruction includes outdoor work in gardening, poultry-raising, bee-keeping and orchard and dairy work. The Rev. Pabbé O. Martin devotes the whole of his time to the superintendence of this work, paying frequent visits to the institutions, delivering lectures, etc. The grants made the institutions to assist this branch of instruction amounted to \$11,490, the balance going to pay the salary of the Provincial Inspector, expenses of a school exhibit at the Quebec Exhibition, and in printing pamphlets for distribution.

Maple Industry, \$2,750.

The maple industry of the province continues to make satisfactory development and the quality of the product to show an improvement, but it is believed that the output can still be greatly increased if proper methods are followed. The work of instruction in methods of manufacture, carried on during the last few years, has been financed by the funds provided by the Agricultural Instruction Act as described in the previous report, but legislation, looking to the protection of the industry has no doubt had an important bearing on results, as have also the steps taken by various co-operative organizations for the marketing of the product.

During the year, a fourth sugar-making school was added to the three already in operation, the new one being located at St. Casimir, Portneuf county. The attendance showed an increase for the year at two out of the three older schools, and was as follows:

	Students.	Classes.
St. Hyacinthe	11	1
St. Louis	14	1
St. Maurice	1	1
St. Charles	11	1

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Services and expenses of superintendents and cost of students' board are charged to the vote.

The work of giving practical demonstrations at school houses, having proved successful, was continued, and 796 farmers were reached in this way. Twenty thousand copies of a bulletin on sugar-making were distributed.

Lectures and Publications, \$11,234.

This division of the grant goes to assist the Provincial Department to carry out the annual short course programme, and to print and publish bulletins and pamphlets for the information of the farming community.

The courses are additional to those carried on by the Schools and Colleges of Agriculture, and, this year, were divided into two series, one conducted at points on the Grand Trunk and Quebec Central railways, and the second along the lines of the Intercolonial railway. The courses are of one week's duration with three sessions per day, the work being performed largely by the district representatives, officers of the Dominion and Provincial Departments, the professors of the Schools of Agriculture, sugar-making school instructors and others.

The first series of courses extended from November, 1915, to March, 1916. Courses were held at thirteen points in as many counties, the total attendance being very large.

This year domestic science courses were added to the general courses in agriculture and Mlle. Jeanne Anctil, Director of Domestic Science School of Montreal, being in charge of the work. At three points, St. Agapit, Plessisville and Beauceville, women's clubs were organized.

The second series extended over a period of fifteen weeks. The courses were of five days' duration and were held at fifteen points, in as many counties, stretching from Lévis to Gaspé. The lectures were given mainly by the staff of the School of Agriculture of Ste. Anne de la Pocatière, assisted by representatives of the Provincial and Dominion Departments. As an outcome cow-testing associations were established quite generally, and the maintenance of various agricultural organizations was greatly encouraged.

Schools of Agriculture.

The work begun in 1912 of increasing the capacity of the Agricultural Institute at Oka, and of the School of Agriculture at Ste. Anne de la Pocatière has now been completed. These schools now accommodate 125 and 130 students respectively, and during the year, each had its full complement. The usual winter and summer short courses were held for farmers, farmers' sons and school inspectors, and all are reported to have been well attended.

OKA AGRICULTURAL INSTITUTE, 1915-16.

Expenditure of Grant.

Enlargement of college building, annual payment.. . . .	\$ 5,000 00
Insurance, heating and lighting.. . . .	1,600 00
Allowance for board of students.. . . .	1,936 00
Administration, salaries and wages.. . . .	3,700 00
Apparatus and supplies.. . . .	631 00
Salaries and allowances of teaching staff.. . . .	7,060 00
Expenses of various branches.. . . .	500 00
Experimental plots.. . . .	483 00
Total.. . . .	<u>\$ 20,910 00</u>

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SCHOOL OF AGRICULTURE, STE. ANNE DE LA POCATIÈRE, 1915-16.

Expenditure of Grant.

Building extension, annual payment..	\$ 6,000 00
Insurance, heating and lighting..	1,715 00
Appliances..	181 05
Library books and magazines..	154 90
Experimental plots and drainage..	850 00
Machinery and appliances for preserving fruit..	300 00
Travelling expenses..	96 09
Allowance for board of students..	1,579 45
" wages of employees..	1,035 00
Salaries and allowances of teaching staff, etc..	8,005 00
Total..	<u>\$ 19,916 49</u>

MACDONALD COLLEGE.

REPORT ON WORK PERFORMED IN 1915-16.

Animal Husbandry: The work in this department was devoted entirely to sheep husbandry. Much effort was directed towards enlarging, organizing and assisting the nine wool growers' and sheep breeders' associations now operating in the province. These associations increased their membership from 975 to 1,617 this year. One hundred and sixty-nine thousand eight hundred and thirty-nine pounds of wool were marketed co-operatively through these associations at an average price of 41.8 cents per pound, which was 7 cents to 12 cents a pound more than that paid locally throughout the province. In addition to marketing their wool these associations have successfully conducted four local sheep sales at which 98 head of breeding stock were sold, and they are now organized to undertake the co-operative marketing of their lambs.

Eight demonstration flocks of pure-bred sheep have been established in various parts of the province for the purpose of demonstrating improved methods of breeding, housing, feeding and management. The increase will be used in establishing new flocks. A few pure-bred rams have been placed with grade flocks in order that farmers might ascertain the value of using pure-bred sires on grade ewes. Through these channels the blood lines of sheep on certain districts may be definitely influenced, and at the same time sheep raising may be given an impetus.

Experiments with fifty lambs were conducted comparing the value of various roughages, silage and swedes in different combinations with a standard grain ration for fattening lambs.

Educational features of the work consisted, for the most part, in delivering lectures and giving demonstrations. Talks were given on the preparation of wool for market, management and feeding of breeding ewes, fattening lambs for market, etc. Demonstrations were given in the proper methods of shearing, rolling and tying of fleeces, docking and castrating lambs. A sheep exhibit was sent to Sherbrooke Fair. Other features of the exhibit were models and particulars of a sheep barn, feeding rack, lamb trough and dipping tank.

Cereal Husbandry: The work conducted in the cereal husbandry department is that of root crop investigation. During the past season the cultural experiments of former years have been continued. Of these the experiments on dates of seeding and on dates of singling have given very conclusive results. There is now no doubt that an increased yield results from early seeding and singling. These facts have not, up to the present, been appreciated by the majority of root growers.

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In addition to cultural experiments considerable work has been done on seed production and on selection with the object of isolating superior strains. The result has been that home-grown seed has shown itself vastly superior to anything placed in the market up to the present. By careful selection strains of mangels and of swedes have been isolated which, in triplicate tests, have proved superior not only to ordinary commercial varieties but also superior, under Quebec conditions, to outstanding strains obtained directly from European breeders.

Aside from the experimental work conducted at the college, all possible assistance has been given to the farmers of the province of Quebec in order to encourage the production of home-grown seed. With this object in view seed roots and good foundation seed have been distributed in several counties. The results have been excellent. These local tests give good promise of a future satisfactory development of this important line of work.

Horticulture: Seed distribution to school children in rural districts has been continued as in the past two years. One thousand 10-pound lots of potatoes, 100 packets of early sweet corn, 500 packets tomatoes and 800 collections of flower seed were distributed in the rural schools.

The irrigation system has been found very useful, especially during June, July, and August of 1915, and records have been kept of amounts of water used on various crops and comparisons made with unirrigated plots of similar vegetables and strawberries. Information is being sought in regard to the financial returns of these crops through a series of years.

An experiment was undertaken in order to determine the degree of self-fertility or self-sterility in the McIntosh and Fameuse apples, and some information has been gathered in regard to it. The experiment will be continued for at least two more years. A number of vacancies in the three demonstration orchards were filled in, and in general these orchards are making good growth.

Biology: The work done in the Biology Department is divided under two heads—(1) Investigation, (2) Teaching.

During the summer the work consists almost exclusively of investigation of injurious insects. The most important work undertaken during the past year was a continuation and completion of studies on the life history and control of the bud moth *Eucosma* (*Tmetocera ocellana* Schiff). This insect, which is injurious in practically all the fruit growing districts of Canada from British Columbia to Nova Scotia, has during recent years been one of the most serious fruit pests in Quebec. In the spring it causes injury to the leaf buds, flower buds and setting fruit; in summer it skeletonises the leaves and injures the larger fruit, making culls of otherwise excellent fruit. Experiments conducted in the spring of 1915 showed that the best two sprays for controlling this insect were those applied shortly before the blossoms open and shortly after the petals fall. These experiments were repeated in the spring of 1916 and gave the same results. In the summer of 1915 spraying experiments to control the newly hatched larvæ were conducted. It was found that a thorough spraying with lime and sulphur and lead arsenate when the eggs are on the leaves will destroy a large proportion of the larvæ as soon as they hatch and commence feeding. A full account of the life history and control of this insect is now in course of preparation and will be published shortly.

During 1915, observation and notes were made on certain clover insects. A curculionid weevil *Tychius picirostris* was discovered which threatens to be a new pest of clover. This insect is being carefully studied.

A start has also been made on the study of the caterpillars and other larvæ which attack apples in Quebec. The intention is to gradually acquire information on these insects, their occurrence, the extent of their injury, their habits and control, and to construct a key which, supplemented by drawings and photographs, will enable the grower to determine any of these insects.

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During the college session a considerable amount of the time of the investigator was devoted to teaching.

Poultry: Six breeding flocks have been established in the six demonstration houses. A number of breeding flocks have also been established with reliable farmers in various parts of the province to assist in the work of supplying hatching eggs for school fair distribution. 541 sittings of hatching eggs have been distributed to school children from seven centres. School fairs will be held at which the children will exhibit the chicks hatched from the eggs supplied to them. A marked improvement is noticeable in the number of pure-bred poultry throughout the province. Educational exhibits have been put on at a number of poultry shows. To ascertain existing conditions on the farms in the province a poultry survey has been started, and up to the present time about 300 farms have been visited.

Chemistry: The department of chemistry has continued throughout the year investigations of maple syrup, maple sugar and other products of the maple tree. Five papers were published in connection with the work done on methods of detecting the adulteration of maple products. A method for detecting the adulteration of both maple sugar and maple syrup has been worked out during the past year, which promises to be the best single test yet devised.

Rural School Department: During the past year over 800 pupils in sixteen superior schools received a two-day short course in nature study and agriculture, while several hundred more in the smaller schools were given lectures along the same lines. Public meetings were also held, which were well attended. Eleven conferences were addressed at which 175 elementary teachers were present. Some of the fund was also expended on the improvement of school grounds, ten being improved during the year with shrubs and flowers. The school boards, however, refund a fair proportion of this outlay.

Veterinary Science: Classes have been given in veterinary work at Macdonald College. Demonstrations and lectures have been given at various places throughout the province. The various treatments of contagious abortion have been experimented with to determine the most adaptable method for controlling the disease. The intra-dermal test for tuberculosis was also given a fair trial to determine its reliability in diagnosing the disease.

Household Science: During the year 1915-16 there has been in the work of the Quebec Homemakers' Clubs, as a whole, a sound and well sustained development. Not only have the clubs carried out their regular study programmes and in many instances done much valuable work in their own communities but, in addition, have in almost every case materially assisted the national movement in Red Cross and other patriotic service. Four new clubs were organized during the year.

The clubs gave considerable attention during the year to stimulating the interest of the school children in matters pertaining to the home and the community by offering prizes for cooking, sewing and garden products at school fairs. The demonstrator gave practical demonstrations to the children to aid them in preparing their exhibits. This movement will, it is believed, have far-reaching results for good throughout the province, leading to improvement in home and community life.

Demonstration: The expenditure was devoted to demonstrator and office for Pontiac county at Shawville, Que.

Short Course: Winter short courses were held in live stock, field crops, poultry, horticulture, farm engineering and farm home at nineteen centres in the province. Fifty-two meetings were held in 19 places in 11 counties; the total attendance was 2,371; with an average per meeting of 40. Eighty-six addresses were given by 15 different members of the college staff.

DEPARTMENT OF AGRICULTURE

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MACDONALD COLLEGE.

RECEIPTS.

Credit balance, April 1, 1915..	\$ 1,317 25
Dominion grant, 1915-16..	20,000 00
Total..	<u>\$ 21,317 25</u>

DISBURSEMENTS.

(Including salaries of members of staff paid wholly or in part from Grant.)

Animal husbandry..	\$ 4,879 56
Biology..	1,049 94
Cereal husbandry..	2,516 19
Chemistry..	1,043 37
Demonstration..	2,207 59
Horticulture..	661 56
Household science..	1,427 70
Physics..	525 01
Poultry..	2,481 38
Veterinary science..	1,220 96
Rural schools..	1,920 08
General..	712 55
Short courses..	392 07
	<u>\$ 21,037 96</u>
Credit balance March 31, 1916..	279 29
Total..	<u>\$ 21,317 25</u>

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APPOINTMENTS PROVIDED BY THE DOMINION GRANT.

(A) *List of persons regularly employed whose salaries are paid wholly from the Agricultural Instruction Grant.*

Instructor, Rev. J. B. A. Allaire, St. Thomas d'Aquin, St. Hyacinthe, Quebec.

" L. P. Belisle, Department of Agriculture, Quebec.

" Raoul Dumaine, St. Guillaume d'Upton, Quebec.

" J. G. Morgan, Department of Agriculture, Quebec.

" J. M. T. Talbot, Department of Agriculture, Quebec.

" Antonio Mathieu, Department of Agriculture, Quebec.

" Lucien Dupuis, Department of Agriculture, Quebec.

Entomologist, G. Maheux, Department of Agriculture, Quebec.

Instructor, J. E. Grisé.

Expert, Bacon Industry, A. Hansen, Department of Agriculture, Quebec.

Seed Expert, Louis Lavallée, St. Guillaume d'Upton.

Poultry Superintendent, Rev. Brother Liguori, Department of Agriculture, Quebec.

Poultry Assistant Superintendent, Léon Picard, Department of Agriculture, Quebec.

District Agronomist, Alphonse Roy, Plessisville, Quebec.

" H. Clouthier, Rougemont, Rouville, Quebec.

" J. M. Leclair, Amos, Abitibi, Quebec.

" R. A. Rousseau, Acton-Vale, Bagot county.

" Alphonse Désilets, St. Jean, I. O., Montmorency county.

" J. C. Magnan, St. Casimir, Portneuf.

" Abel Raymond, St. Valier, Bellechasse county.

" W. G. MacDougall, Lennoxville, Sherbrooke county.

" R. Husk, Huntingdon.

" J. A. Fortin, St. Stanislas, Champlain county.

" J. N. Albert, Bonaventure.

" L. V. Parent, Richmond.

Assistant District Agronomist, Arthur Landry, Actonvale, Bagot county.

" " Wilfred Delaney, St. Jean, I. O., Montmorency

" " J. R. St. Arnaud, St. Casimir, Portneuf.

" " L. A. Gosselin, St. Valier, Bellechasse.

Lecturer, Miss Eva Paré, Causapscal, Rimouski county.

" " Eveline LeBlanc, Bonaventure.

" Rev. Ol. Martin, St. Denis, Kamouraska county.

Clerk, J. D. Barbeau, 142 Sauvageau street, Quebec.

" O. Roberge, Rosalie, Bagot.

(B) *List of persons regularly employed, whose salaries are paid in part from the Agricultural Instruction grant.*

Accountant, J. Arthur Paquet, Department of Agriculture, Quebec.

COLLEGE OF AGRICULTURE.

(*Ste. Anne de la Pocatière, Kamouraska.*)

The salaries of the following are paid wholly from the Federal subsidy—

Professor of Horticulture, Rev. P. Levasseur.

" " " " A. Letourneau.

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Professor of Mathematics, E. Beaudoin.

" " Chemistry, L'Abbé Geo. Coté.

" " English, T. Ennis.

" " Mathematics, S. Lord.

" " Droit Rural, Notaire Dupuis.

" " Génie Rural, Albert Sirois.

Asst. Chef de Pratique Générale, M. Philéas Boulet.

Horticulturist, Albert Jalbert.

Instructor in Dairying, Ernest Lizotte.

" " " François Dionne.

" " " Alfred Robichaud.

Domestic help (4 persons).

The salaries of the following are paid in part from the Federal subsidy:—

Professor of Chemistry, Georges Bouchard.

Instructor, Jos. Sénéchal.

THE OKA AGRICULTURAL INSTITUTE.

(*La Trappe, Quebec*).

The salaries of the following are paid wholly from the Federal grant:—

Director, Rev. Father Jean-de-la-Croix.

Chief of general practice, Brother Celestin.

" " " Gérard.

Aumonier, Rev. Father Yves.

Institute Secretary, D. Fortin.

Professor of Physics, J. W. Ponton.

" " Agriculture, Philippe Roy.

" " Entomology, Firmin Létourneau.

" " Veterinary Medicine, Dr. A. Dauth, Montreal.

" " Apiculture, Rev. P. Maur.

" " Horticulture, Rev. P. Athanase.

" " Poultry Husbandry, Rev. Brother Wilfred.

Instructor Agricultural Engineering, H. Nagant.

" Horticulture, L. Arscott.

Vergers & Pépinière, P. Honore.

Chaplains, R.R.F.F. Humbert and Alfred.

The salaries of the following are paid in part from the Federal subsidy:—

Professor of English, Rev. Brother Benjamin.

" " Arboriculture, Rev. Father Leopold.

" " Biology, Rev. Father Isadore.

MACDONALD COLLEGE.

(*Quebec*).

Officers regularly employed, whose salaries are paid wholly from the Agricultural Instruction grant:—

Crop Investigator, P. A. Boving.

Veterinarian, N. E. McEwan, V.S.

Sheep Husbandry, A. A. McMillan, B.S.A.

Assistant in Biology, E. M. Duporte, B.S.A.

" " Physics, R. MacDougall, B.S.A.

" " Animal Husbandry, A. E. McLaurin, B.S.A.

" " Assistant in Chemistry, J. G. Van Zoeren.

Demonstrator Homemakers' Clubs, Miss F. Campbell.

Rural School Demonstrator, J. E. McQuat, B.S.A.

District Demonstrator, C. H. Hodge, B.S.A., Shawville, Quebec.

SESSIONAL PAPER No. 15c

QUEBEC.

GRANT OF 1914-15.

SUMMARY STATEMENT FROM APRIL 1, 1915, TO DECEMBER 31, 1915.

No.	Classification.	Balance on Hand April 1, 1915.	Expended to Dec. 31, 1915.
		\$ cts.	\$ cts.
1	Poultry.....	9,881 34	9,881 34
2	Fruit Growing.....	1,000 00	1,000 00
3	Bacon Industry.....	3,116 54	3,116 54
4	Schools of Agriculture.....	18,000 47	18,000 47
5	Agriculture in Academies, Rural and Normal Schools..	3,207 29	3,207 29
6	District Representatives.....	8,593 11	8,593 11
7	Experimental Union.....	1,500 00	1,500 00
8	Alfalfa and Clover.....	0 03	0 03
9	Seed Selection.....	1,998 99	1,998 99
10	Bee-keeping.....		
11	Tobacco.....	206 78	206 78
12	Dairying.....	4,541 29	4,541 29
13	Drainage.....	6,800 78	6,800 78
14	Domestic Science.....	3,949 67	3,949 67
15	Maple Sugar.....	663 56	663 56
16	Conferences, etc.	222 00	222 00
	Total	65,589 11	65,589 11

DETAILS OF EXPENDITURE, APRIL 1, 1915, TO DECEMBER 31, 1915.

1.—POULTRY.

April 1, 1915, balance unexpended... .. \$ 9,881 34
Expended to December 31, 1915... .. \$ 9,881 34

Rev. Bro. Liguori, Provincial Superintendent, salary and expenses \$ 681 77
Leon Picard, Assistant... .. 450 00
J. D. Barbeau, Assistant... .. 223 25
Rev. J. B. A. Allaire, Lecturer... .. 853 92

Instructors, services and expenses—

Raoul Dumaine.. .. \$ 687 38
Jean Charbonneau.. .. 563 89
Tel. Roy.. .. 387 20
J. Art. Fortin.. .. 242 80
J. G. Morgan.. .. 522 11
Art. Chabot.. .. 256 00
Art. Larabee.. .. 201 80
C. Vaillancourt.. .. 17 05
J. M. Talbot.. .. 40 00
P. Racine.. .. 89 20
J. W. Mercier.. .. 5 25
\$ 3,013 28

Poultry Station—

Services of superintendents, rental, etc.. .. 2,045 03
Eggs for distribution, incubators, utensils, and supplies.. .. 2,404 14
Printing, etc.. .. 110 03
St. Hyacinthe Co-operative Society grant.. .. 100 00

Total \$ 9,881 34

7 GEORGE V, A. 1917

2.—FRUIT GROWING.

April 1, 1915, balance unexpended.. . . .	\$ 1,000 00	
Expended to December 31, 1915.. . . .		\$ 1,000 00
<hr/>		
Fruits Division, salary and expenses—		
Rev. V. A. Huard, Provincial Entomologist.. . . .	\$	75 00
D. J. Wood, Conserves expert.. . . .		150 00
J. H. Lavoie, Assistant Arboriculturist.. . . .		100 00
<hr/>		
Instructors, services and expenses—		
F. X. Gosselin.. . . .	\$	42 90
P. Lapointe.. . . .		55 60
Henri Roy, Forestry Engineer.. . . .		350 00
Alf. LaBel.. . . .		126 35
G. Reynaud.. . . .		51 85
		<hr/>
	\$	626 70
Incidentals.. . . .		48 30
		<hr/>
Total.. . . .	\$	1,000 00

3.—BACON INDUSTRY.

April 1, 1915, balance unexpended	\$3,116 54	
Expended to December 31, 1915.. . . .		\$3,116 54
<hr/>		
A. Hansen, bacon expert, salary	\$	750 00
A. C. St. Pierre, manager St. Valier Abattoir.. . . .		75 00
Art. Perrault, co-operative society organization.. . . .		116 54
Wilfrid Brochu, building annex to St. Valier Abattoir		1,000 00
Refrigeration at St. Valier		704 00
Supplies and incidentals		471 00
		<hr/>
Total.. . . .		\$3,116 54

4.—SCHOOLS OF AGRICULTURE.

April 1, 1915, balance unexpended.. . . .	\$18,690 47	
Expended to December 31, 1915		\$18,690 47
<hr/>		
Oka Institute, balance of grant.. . . .	\$	2,910 00
Macdonald College, balance of grant		10,000 00
Ste. Anne de la Pocatière, balance of grant.. . . .		4,000 00
" " " students' board allowance.. . . .		1,380 47
Orphelinat Agricole de Vauvert.. . . .		400 00
		<hr/>
Total.. . . .		\$18,690 47

5.—AGRICULTURAL TEACHING IN ACADEMIES, RURAL AND NORMAL SCHOOLS.

April 1, 1915, balance unexpended.. . . .	\$3,207 29	
Expended to December 31, 1915.. . . .		\$3,207 29
<hr/>		
Rev. A. Michaud, lecturer, salary, \$133.32; expenses, \$82.05	\$	215 37
J. C. Magnan, organization of school gardens.. . . .		200 00
Macdonald College, re agriculture in Protestant Normal Schools, 1913-14.. . . .		412 80
17,500 copies "Le Potager Canadien".. . . .		2,000 00
10,000 " " "Conferences sur l'Agriculture".. . . .		300 00
Incidentals.. . . .		79 12
		<hr/>
Total		\$3,207 29

SESSIONAL PAPER No. 15c

6.—DISTRICT REPRESENTATIVES.

April 1, 1915, balance unexpended	\$8,593 11	
Expended to December 31, 1915.. .. .		\$8,593 11
<hr/>		
Salaries and disbursements—		
R. A. Rousseau		\$1,222 83
J. C. Magnan.. .. .		962 36
H. Cloutier.. .. .		1,140 62
A. Raymond.. .. .		1,127 92
J. M. LeClair.. .. .		595 91
A. Desilets.. .. .		795 61
L. P. Gauvin, assistant.. .. .		64 39
J. S. Simard, "		158 70
R. Barbin, "		268 46
Alf. Paquet, "		583 65
J. A. Fortin, "		606 21
		<hr/>
		\$7,825 76
Cameras and photo supplies.. .. .		82 40
Clover seed for distribution.. .. .		173 07
Motor cycle.. .. .		298 00
Office furniture.. .. .		98 00
Postage and incidentals.. .. .		114 88
		<hr/>
Total.. .. .		\$8,593 11

7.—EXPERIMENTAL UNION.

April 1, 1915, balance unexpended	\$1,500 00	
Expended to December 31, 1915.. .. .		\$1,500 00
<hr/>		
Balance of grant		\$1,500 00

8.—ALPACAS AND CLOVER.

April 1, 1915, balance unexpended.. .. .	\$0 00	
Expended to December 31, 1915.. .. .		\$0 00
<hr/>		
Postage.. .. .		\$0 00

9.—SEED SELECTION.

April 1, 1915, balance unexpended.. .. .	\$ 1,998 99	
Expended to December 31, 1915.. .. .		\$ 1,998 99
<hr/>		
Salaries and Expenses—		
L. Francoeur.. .. .	\$	525 07
P. N. St. Pierre.. .. .		179 85
Jos. Barbeau.. .. .		77 50
L. P. Bédard.. .. .		295 00
L. Lavallee.. .. .		210 57
O. Hoberge.. .. .		96 77
L. E. Kronstrom.. .. .		470 17
L. Brown, leaflet on clover and travelling expenses.. .. .		588 75
Incidentals.. .. .		76 81
		<hr/>
Total.. .. .	\$	1,998 99

11.—TOBACCO.

April 1, 1915, balance unexpended.. .. .	\$	566 78	
Expended to December 31, 1915.. .. .		.....	\$ 566 78
<hr/>			
L. E. Kronstrom, salary and expenses.. .. .	\$	315 11	
Expenses <i>re</i> demonstration fields.. .. .		560 86	
Incidentals.. .. .		40 81	
			<hr/>
			\$ 916 78
<i>Re</i> land purchase at St. Cesaire, amount not utilized.. .. .		350 00	
			<hr/>
Total.. .. .	\$	566 78	

12.—DAIRYING.

April 1, 1915, balance unexpended.. .. .	\$	4,541 29	
Expended to December 31, 1915.. .. .		.....	\$ 4,541 29

Services and expenses—

Ph. Rheault.. .. .	\$	146 50	
P. Gaudreaut.. .. .		428 25	
G. St. Pierre.. .. .		89 55	
A. N. La Brie.. .. .		21 95	
Art. Morisette.. .. .		130 50	
Jos. Pasquet.. .. .		10 90	
J. Art. Paquet.. .. .		300 00	
J. A. Talbot.. .. .		192 55	
J. D. Leclair, indemnity.. .. .		300 00	
Geo. Cayer.. .. .		200 00	
L. P. Lacoursiere.. .. .		150 00	
T. H. Fortier.. .. .		63 00	
Grant St. Hyacinthe Dairy Society.. .. .		2,000 00	
Typewriter, St. Hyacinthe Dairy Society.. .. .		168 25	
Translation, postage, incidentals.. .. .		339 84	
			<hr/>
Total.. .. .	\$	4,541 29	

13.—DRAINAGE.

April 1, 1915, balance unexpended.. .. .	\$	6,956 38	
Expended to December 31, 1915.. .. .		.....	\$ 6,956 38

Services and Expenses—

John Drolet.. .. .	\$	764 20	
W. Giroux.. .. .		1,034 63	
F. N. Savole.. .. .		699 15	
Orens Garneau.. .. .		377 07	
J. Delaney.. .. .		440 60	
R. Barbin.. .. .		342 00	
L. P. Gauvin.. .. .		307 75	
R. Belzile.. .. .		290 15	
J. Barbeau.. .. .		165 00	
A. L. Gareau.. .. .		100 00	
Earl Fraser, Macdonald College.. .. .		289 56	
W. E. N. Hodgins,		343 51	
C. Lyster,		263 55	
G. E. Emberley,		379 80	
E. M. Ewart,		344 60	
			<hr/>
			\$ 6,141 57
Supplies, renewals, printing and incidentals.. .. .		814 81	
			<hr/>
Total.. .. .	\$	6,956 38	

14.—DOMESTIC SCIENCE.

April 1, 1915, balance unexpended.. .. .	\$3,949 67	
Expended to December 31, 1915.. .. .	.....	\$3,949 67
Rev. O. L. Martin, Provincial Inspector, salary and expenses..		\$ 363 10
Grants to schools and academies.. .. .		3,586 57
Total.. .. .		\$3,949 67

April 1, 1915, balance unexpended.. .. .	\$	663 56
Expended to December 31, 1915.. .. .	\$	663 56
<hr/>		
Alfred Lebrun, Inspector, salary and expenses.. .. .	\$	103 15
P. E. Monty, Instructor.. .. .		109 73
L. J. A. Dupuis, Supt. Ste. Louise school, allowance, board of students, etc.. .. .		226 03
Expenses <i>re</i> demonstrations.. .. .		221 30
Incidentals.. .. .		3 35
<hr/>		
Totals.. .. .	\$	663 56

April 1, 1915, balance unexpended..	\$	923 66
Expended to December 31, 1915..	\$	923 66
<hr/>		
Art. Perrault, re co-operative society organization..	\$	163 46
V. Vincent, salary and expenses..		174 16
J. G. Bouchard, lecturer, salary and expenses..		88 55
F. N. Savole, salary and expenses..		131 00
Jos. Pasquet, hon. and expenses..		107 10
Rev. H. Bois,	"	32 30
Chs. Peloquin,	"	19 20
L. Lavallee,	"	24 60
Orens Garneau, expenses..		12 50
A. L. Garneau, expenses..		160 00
Incidentals..		10 78
Total..	\$	923 66

QUEBEC.

GRANT OF 1915-16, \$215,310.70.

SUMMARY STATEMENT TO MARCH 31, 1916.

No.	Classification.	Grant 1915-16.	Expended to March 31, 1916.	Unexpended Balances March 31, 1916.
		\$ cts.	\$ cts.	\$ cts.
1	Poultry.	15,000 00	9,543 98	5,456 02
2	Fruit	33,000 00	27,240 60	5,759 40
3	Bacon	16,500 00	15,924 08	575 92
4	Schools of Agriculture.	60,000 00	41,405 06	18,594 94
5	Instruction in academies and schools.. . . .	13,500 00	13,117 00	383 00
6	District representatives.	7,500 00	6,180 70	1,319 30
7	Experimental union	2,000 00	1,000 00	1,000 00
8	Clover and alfalfa.	4,000 00	3,995 64	4 96
9	Seed.	4,500 00	3,957 01	542 99
10	Bee-keeping.	9,000 00	8,996 55	3 45
11	Tobacco.			
12	Dairying	25,000 00	25,000 00	
13	Drainage	1,000 00	718 20	281 80
14	Domestic science	10,000 00	9,540 41	459 59
15	Maple sugar.	4,000 00	2,075 71	1,924 29
16	Lectures and publications.	10,310 70	10,310 10	0 60
	Totals	215,310 70	179,004 44	36,306 26

DETAILS OF EXPENDITURE OF GRANT OF 1915-16, TO MARCH 31, 1916.

1. POULTRY.

Grant.	\$ 15,000 00	
Expended to March 31, 1916.		\$ 9,543 98
Balance March 31, 1916.		5,456 02
Total.	\$ 15,000 00	\$ 15,000 00
Salaries and Expenses—		
Rev. Bro. Liguori, Poultry Superintendent.	\$ 1,180 63	
Leon Picard, Assistant.	783 96	
J. D. Barbeau, Assistant.	355 75	
Rev. J. B. A. Allaire, Lecturer.	660 03	
Art. Chabot, Instructor.	536 85	
R. Dumaine, "	835 85	
J. G. Morgan, "	787 95	
Tel. Roy, "	85 70	
Art. Larabee, "	148 50	
J. Charbonneau, "	70 00	
Sundry persons.	56 88	
Total.	\$ 5,502 10	
Eggs for distribution.	314 50	
Poultry stations, supplies and equipment.	447 23	
Poultry services of Superintendents and rental allowance.	2,725 00	
Printing, exhibits and incidentals.	555 15	
Total.	\$ 9,543 98	

SESSIONAL PAPER No. 15c

2. FRUIT CULTURE.

Grant..	\$ 33,000 00	
Expended to March 31, 1916..		\$ 27,240 60
Balance March 31, 1916..		5,759 40
Total..	\$ 33,000 00	\$ 33,000 00

Salaries and Expenses—

Solyme Roy, Chief Horticulturist, expenses..	\$ 767 39
Henri Roy, expenses..	779 01
J. H. Lavoie, Assistant Horticulturist..	1,222 50
Peter Reid, Superintendent, Demonstration orchards..	1,342 11
Rev. V. A. Huard, Entomologist..	827 09
D. J. Wood, Conserves expert..	163 00
L. E. Kronstrom, expenses..	200 00
Rev. P. Leopold, "	191 10
Jos. Cloutier, "	142 24
Alfred Label, Instructor..	1,392 35
J. M. Talbot, "	1,106 06
F. X. Gosselin..	480 45
Alp. Roy..	153 86
R. Cossette..	105 12
Phil. Hamel..	921 95
Tel. Roy, expenses..	50 00
Sundry persons, services and expenses..	150 10
	\$ 9,994 32

Demonstration orchards, allowances, expenses and rental..	\$ 2,745 57
Equipment and supplies..	1,773 19
Nursery at Berthierville, salaries, labour, supplies, trees and incidentals..	3,354 56
Fruit trees for stations and Horticultural societies	959 88
	\$ 8,833 20
Allowances to Oka Institute..	1,139 16
Preparation and printing of bulletins and leaflets on fruit culture..	6,085 44
Exhibits, printing and incidentals..	788 47
Gas engine, Rougemont Demonstration orchard..	400 00
Total..	\$ 27,240 60

3. BACON EXPERT

Grant..	\$ 16,500 00	
Expended to March 31, 1916..		\$ 15,924 08
Balance March 31, 1916..		575 92
Total..	\$ 16,500 00	\$ 16,500 00

St. Valler Abattoir and Annex, construction..	\$ 4,871 00
Furnishings and equipment, including refrigeration..	3,069 59
Insurance and incidentals..	421 16
Advances..	3,400 00
	\$ 11,761 75

Salaries and expenses—

A. Hansen, Bacon Expert..	\$ 2,831 51
A. C. St. Pierre, Instructor..	1,419 17
E. Ruel..	151 64
Total..	\$ 4,402 32

4. SCHOOLS OF AGRICULTURE.

Grant..	\$ 60,000 00	
Expended to March 31, 1916..		\$ 41,405 06
Balance March 31, 1916..		18,594 94
Total..	\$ 60,000 00	\$ 60,000 00
Oka Agricultural Institute, grant..		\$ 15,000 00
Ste. Anne de la Pocatière, School of Agriculture, grant..		10,000 00
Board of students..		705 06
Macdonald Agricultural College, grant..		15,000 00
Orphelinat Agricole à Vauvert, grant..		700 00
Total..		\$ 41,405 06

5. AGRICULTURE IN ACADEMIES, RURAL AND NORMAL SCHOOLS.

Grant..	\$ 13,500 00	
Expended to March 31, 1916..		\$ 13,117 00
Balance March 31, 1916..		383 00
Total..	\$ 13,500 00	\$ 13,500 00
Services as Special Lecturers, sundry persons..		\$ 3,490 00
Expenses, school gardens..		241 20
Supplies for scholars..		1,893 32
Prizes, School Fairs..		85 66
5,000 Bulletin, No. 12..	\$ 514 60	
10,000 garden leaflet..	100 00	
17,500 "Le Potager Canadien"..	1,500 00	
Miscellaneous..	83 16	
		\$ 2,197 76
Ste. Anne de la Pocatiere—		
Short Course students' indemnity..	\$ 654 85	
Teachers' Special Course..	397 00	
Oka Institute—		
Short Course students' indemnity..	947 85	
Teachers' special course..	626 05	
Macdonald College—		
Grant for special courses..	2,583 31	
		\$ 5,209 06
		\$ 13,117 00

6. DISTRICT REPRESENTATIVES.

Grant..	\$ 7,500 00	
Expended March 31, 1916..		\$ 6,180 70
Balance March 31, 1916..		1,319 30
Total..	\$ 7,500 00	\$ 7,500 00
Salaries and Expenses—		
R. A. Rosseau, District Representative..	\$ 754 03	
J. C. Magnan, "	1,412 76	
H. Cloutier, "	659 99	
A. Raymond, "	850 43	
J. M. Leclair, "	795 20	
J. A. Desilets, "	671 16	
J. A. Fortin, Assistant District Representative..	438 59	
Alp, Paquet, "	268 35	
Sundry persons..	206 72	
		\$ 6,057.23
Furnishings, printing and repairs..		123 47
Total..		\$ 6,180 70

S. CLOVER AND ALFALFA.

Salaries and Expenses—

9. SEED SELECTION.

Instructors, salaries and expenses—198 APPLICATIONS

Grant..	\$ 2,000 00	
Expended to March 31, 1916.. . . . .	.....	\$ 2,596 31
Balance March 31, 1916.. . . . .	.....	5 43
	<hr/>	<hr/>
Total..	\$ 2,000 00	\$ 2,000 00

DEPARTMENT OF AGRICULTURE

7 GEORGE V, A. 1917

10. APICULTURE—*Concluded.*

Inspectors, Instructors, Salaries and Expenses—

Inspectors, Investigators, Salaries and Expenses	
Dr. L. J. Comiré..	\$ 893 00
Elz. Girard..	1,043 25
A. A. Comiré..	901 83
Hector Béland..	932 40
B. Brissette..	630 40
Luc Dupuis..	826 45
L. J. A. Dupuis..	844 20
P. A. Dupuis..	663 20
Edm. Brissette..	191 00
J. H. Comiré..	162 29
O. Comiré..	397 25
D. Rochefort..	407 60
W. J. Comiré..	295 75
G. Nadeau..	106 90
Henri Beland..	183 75
	<hr/>
	\$ 8,479 27
Supplies, Young Women's Societies..	58 90
Roberval School equipment..	60 00
Supplies and Incidentals..	398 38
	<hr/>
Total..	\$ 8,996 55

12. DAIRYING.

Grant..	\$ 25,000 00	
Expended to March 31, 1916.. . . . .	.....	\$ 25,000 00

Transferred to the Minister of Agriculture to meet expenses of inspection of Cheese and Butter factories..	\$ 25,000 00
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13. DRAINAGE.

Grant..	\$ 1,000 00	
Expended to March 31, 1916..	\$ 718 20
Balance March 31, 1916..	281 80
		<hr/>
Total..	\$ 1,000 00	\$ 1,000 00

Drainage Specialists, Services and Expenses—

L. P. Gauvin, Ste. Anne de la Pocatiere.. . . .	\$	25	85
O. Garneau, " " " " " " " " " " " "		110	73
C. M. Ewart, Macdonald College.. . . .		338	99
G. E. Emberley.. . . .		92	29
Jos. Barbeau, expenses.. . . .		42	20
	\$	610	06
Incidentals.. . . .		108	14
Total.. . . .	\$	718	20

14. DOMESTIC SCIENCE.

Grant..	\$ 10,000. 00		
Expended to March 31, 1916.. . . . .	.....	\$	9,540 41
Balance March 31, 1916.. . . . .	.....		459 59
Total..	\$ 10,000 00	\$	10,000 00

Rev. Ol. Martin, Provincial Inspector, Salary and Expenses..	\$ 1,006 68
Grants to institutions for domestic science teaching.. .. .	7,903 43
Expenses Quebec Exhibition.. .. .	250 70
Printing, leaflets, etc.. .. .	379 60
Total.. .. .	\$ 9,540 41

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15. Marble Slabs.

Alex. Boulduc, Supt. Beauveville, allowance, expenses, board of students.. . . .	\$	676	09
J. L. A. Dupuis, Supt. Ste. Louise, allowance, expenses, board of students.. . . .		579	82
J. H. Lefebvre, Supt. La Minerve, allowance, expenses, board of students.. . . .		375	00
Jos. Julien, services and expenses, demonstrations.. . . .		41	90
Luc. Dupuis, " " " " " "		251	45
Alfred Lebrun, Instructor, expenses.. . . .		25	00
	<hr/>		
20,000 Bulletins.. . . .	\$	1,949	26
Incidentals.. . . .		110	00
		16	45
Total.. . . .	<hr/>	\$	2,075 71

Grant.. . . .	\$ 10,310 70	
Expended to March 31, 1916..	\$ 10,310 10
Balance March 31, 1916..	0 60
Total.. . . .	\$ 10,310 70	\$ 10,310 70

J. L. A. Dupuis..	\$	443	90
M. A. P. Hamal..		157	10
Art. Perrault..		389	85
Rev. Ol. Martin..		46	00
J. L. A. Dupuis..		317	15
J. G. Bouchand..		324	00
Luc. Dupuis..		375	80
Rev. H. Bois..		304	77
Rev. J. B. A. Allaire..		333	50
Rev. N. Pelletier..		213	15
G. Raymond..		700	10
A. T. Charron..		100	10
C. Vaillancourt..		604	50
Rev. A. Michaud..		596	50
A. L. Garneau..		410	00
M. Hebert..		340	10
L. A. Gosselin..		498	00
P. Desjardins..		192	25
P. K. Bayola..		311	45
Rev. A. Létourneau..		280	00
G. St. Pierre..		700	00
Rev. J. P. Lavasseur..		120	00
Jos. Falardeau..		440	45
W. Guypre..		777	00
I. E. Turmel..		74	35
Miss A. Desroches..		100	10
Miss I. Amiel..		114	00
Indemnity, Short Course Students, Ste. Anne..		500	00
Expenses, short courses..		417	00
Printing, Lectures on Agriculture, etc..		100	00
Incidental..		150	00
Total..		5,110	10

QUEBEC.

COMPARATIVE STATEMENT of Expenditure of Provincial Funds for Agricultural purposes
for the Years 1913, 1914, 1915, 1916, and Estimated Expenditure for 1917.

Service.	1913 to June 30.	1914 to June 30.	1915 to June 30.	1916 to June 30	1916-17 to June 30. (Estimated)
	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.
Civil Government Salaries and Contin- gencies.....	41,533 34	45,220 96	45,500 00	45,424 05	45,800 00
Agricultural Schools.....	20,208 39	18,534 99	29,863 09	30,000 00	30,000 00
Housekeeping Schools.....	10,000 00	18,500 00	10,290 29	8,518 00	12,000 00
Agricultural Societies.....	120,614 08	164,551 98	146,296 56	105,061 96	100,000 00
Farmers' Clubs or Agricultural Circles, including grant to S. Shore Railway..	90,851 83	99,650 00	97,000 00	148,020 10	85,000 00
Council of Agriculture.....	4,529 03	3,665 83	2,787 99	2,272 68	3,000 00
Horticultural and Agricultural Societies, Montreal and Provincial.....	1,000 00	1,000 00	1,000 00	1,000 00	1,500 00
Veterinary Instruction.....	5,994 96	5,500 00	4,772 68	6,500 00	5,500 00
Dairying.....	74,441 50	76,000 00	67,676 14	94,451 64	97,000 00
Provincial Laboratory.....	2,000 00	1,540 24	2,000 00	4,000 00	2,000 00
Lectures on Agriculture.....	6,537 56	7,029 44	5,406 09	3,927 21	9,000 00
Fruit Growing.....	11,856 29	10,865 48	6,580 36	4,605 33	5,000 00
Poultry Raising.....	3,000 00	3,000 00	2,099 14	2,126 47	3,000 00
Journal of Agriculture.....	29,000 00	29,000 00	27,000 00	26,624 30	27,000 00
Agricultural Merit.....	4,000 00	2,607 65	3,270 38	3,298 40	3,500 00
Exhibitions.....	32,000 00	32,000 00	31,000 00	30,500 00	32,000 00
Miscellaneous.....	100 00	100 00	100 00	35 00	100 00
School of Agriculture, Ste. Anne de la Pocatière— Towards construction.....	10,000 00	.....	.....	.....	.....
Towards maintenance.....	10,000 00	10,000 00
Totals.....	477,666 98	528,766 57	482,642 72	516,365 14	461,400 00

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MANITOBA.

AGREEMENT, 1915-16.

	Original.	Variations.
	\$ cts	\$ cts.
1 Instructors, Directors and District Representatives (salaries and expenses)...	27,000 00	27,000 00
2 Instruction and Demonstrations (including Short Courses).....	20,000 00	15,000 00
3 Women's Work (Domestic Science).....	7,000 00	7,000 00
4 Boys' and Girls' Clubs.....	4,000 00	5,000 00
5 Bulletins and miscellaneous printing.....	2,000 00	7,000 00
6 Instruction in Public and High Schools.....	1,200 00	200 00
7 Contingencies and miscellaneous.....	3,221 31	3,221 31
Total	64,421 31	64,421 31

The major portion of the grant to the province of Manitoba was used to promote the extension work carried on by the Agricultural College, in the following departments, namely, district representatives, boys' and girls' clubs, short courses, automobile lectures, and home economics societies. The college staff has been strengthened by the appointment of an instructor in soil chemistry, an apiarist, who besides giving instruction in bee-keeping, acts as provincial inspector of apiaries, an instructor in household arts, and three lecturers in home economics. Besides this the grant contributes part of the salaries of a professor of animal husbandry and a lecturer in horticulture and forestry. On the college farm, a considerable scheme of drainage is being carried out to serve as a basis for instruction and investigation, accompanied by soil analysis and soil survey work.

The balance of the grant was expended directly by the Department of Agriculture on demonstration farm plots, the Killarney farm, in giving instruction in methods of dairying among settlers in the central and northern districts who do not speak English, in the grading of dairy products for export, in assisting in the publication of certain reports and bulletins, and in general publicity in connection with the work of the department.

AGRICULTURAL COLLEGE EXTENSION.

District Representatives: This movement was inaugurated at the close of the college course in April, 1915, when six graduates were appointed, as follows: N. S. Smith, Killarney; W. T. G. Weiner, Morris; L. V. Lohr, Neepawa; W. J. Stone, Swan River; H. F. Dandlbaum, Ashburg; K. W. Gordon, Dauphin, and J. E. Sirett, Roblin. Messrs. Gordon and Sirett were at the time teaching agriculture at the high schools at Dauphin and Roblin respectively, and undertook to do district representative work in addition.

Much attention was given during the season to the organization and oversight of boys' and girls' clubs, judging at fairs, addressing meetings and visiting farmers on request, with a view to advising on such questions as drainage and cultivation, weed and insect control and the rotation of crops.

Six short courses were organized and carried out by the representatives in January and February of 1916. Weather conditions somewhat lessened the attendance expected, and a doubt is expressed as to whether work of this kind in the Prairie Provinces will be found as acceptable on this account as in the East.

Important results from instructional work among the farmers themselves from the first season's operations, are, perhaps, scarcely to be expected, particularly in view of the fact that in the fall succeeding their appointment three of the staff, Messrs. Stone, Gordon, and Danielson enlisted, and the department was thus deprived of their services.

Boys' and Girls' Clubs: The membership of these clubs in 1915 reached a total of 5,500 from sixty-five clubs, embracing about 400 schools, mostly rural. In 1914, the membership was 1,800. The contests engaged in included potato-growing, poultry-raising, hog-raising, fodder-corn growing, woodworking, sewing, and baking. Seed-potatoes, seed-corn and eggs from pure-bred strains of poultry were supplied free. To encourage the exhibit of products at club fairs the department contributed fifty per cent of the prize money. All the clubs held fairs, the attendance ranging from 250 to 500, and averaging about 350. The amount charged to the grant in this connection was \$5,900.

Short Courses: The short courses in agriculture and home economics are now under the direction of the extension service. Some of these courses are for men, some for women and a few for both sexes.

During the year six agricultural and home economics combined courses were held, as follows:—

Place.	Subject.	Number Registered.	Number of Sessions.
Winkler.....	3	90	30
Boissevain.....	4	140	25
Neepawa.....	4	110	32
Dauphin.....	4	160	31
Roblin.....	2	65	10
Virden ..	No returns.		

While the usual agricultural topics were taken up in the Men's Courses, the plan was adopted of placing special emphasis on one subject, or to concentrate for a week at a time on a given topic. During one week, animal husbandry was taught; the next being devoted, it may be, to field and garden crops, and the next to dairying, poultry and bee-keeping. At Winkler, Roblin and Dauphin, gas-engine work constituted over one-third of the instruction given, while a supplementary course in this subject was given at Virden for a week after the conclusion of the regular course. The Women's Courses, held independently, comprised instruction by a special staff in dress-making, millinery, home-nursing and cooking.

Home Economics Short Courses: Chiefly under the auspices of the Home Economics Societies, the following courses, usually of one week's duration, were held during the year:—

	Courses.	Sessions.	Registered.
<i>Dressmaking—</i>			
Miss Smith.....	17	9	425
Miss Senior.....	19	9	415
Miss Gowsell.....	12	9	240
Miss Tew.....	15	9	300
<i>Millinery—</i>			
Miss Smith.....	10	9	230
Mrs. Graham.....	15	9	310
Miss Gowsell.....	3	8	45
<i>Cookery—</i>			
Miss Crawford.....	6	9	314
One day lectures.....	..	280	
Miss Gowsell—One day lectures.....	..	125	
<i>Home Nursing—</i>			
Miss Clarke.....	18	9	360

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While the above courses are carried on very generally in connection with the Home Economics Societies, it is the policy of the Extension Service to organize a course wherever twenty women in a community ask for it. Occasionally, classes are organized for the older school girls and others who desire instruction in dress-making and millinery.

Home Economics Societies: These societies continue to show gratifying increases in number and membership, there being, at the close of the year, 48 societies with a membership of over 3,000 as against 2,080 for the year previous. The energies of these societies have been largely bent towards rendering assistance in patriotic work. No attempt was made, therefore, to organize new societies where there were good Red Cross or other patriotic organizations operating. The usual courses in Dress-making, Millinery, Cookery and Home-nursing were held during the year. Of these a statement is presented in the section relating to Short Course Work.

Automobile Lectures: In 1915, the plan of running demonstration trains over the railways of the province, accompanied by a staff of lecturers, was discontinued, and a series of six motor-car tours substituted. By this means the instructors were able to reach places situated at some distance from the railways, leaving railway points for winter meetings. Five speakers were assigned to each car—three on agriculture and two on home economics, and 171 summer meetings were held. The total attendance number 30,000.

The speakers were agreed that these lectures enabled them to get into closer touch with farm problems and conditions than had previously been practicable. The subjects dealt with included feeds and feeding, silage and silo construction, poultry raising, moisture conservation, weed control, lightening control, alfalfa inoculation and subjects relating to women's work. Charts and illustrative material were used, and all members of the staff of the Agricultural College took part. Agricultural Societies, Grain Grower's Associations, Municipal Councils and Home Economic Societies rendered valuable assistance in making the meetings a success.

DEPARTMENT OF AGRICULTURE.

Dairying in Outlying Districts: A special dairy instructor and an interpreter are employed in central and northern Manitoba among the Ruthenians and other non-English speaking communities. This work has been going on since 1913, when Mr. W. J. Crowe was first placed in charge. He reports that the instruction given has been particularly helpful among the Ruthenians. Herds have increased from two or three to ten or twelve head, and whereas the output was formerly so inferior that it could hardly be disposed of, good cream is now being regularly shipped to the creameries. Not only is the amount of cream supplied by the outlying districts steadily increasing in quantity, but it is continually improving in quality as well. In addition to the instructor and an interpreter engaged in the work referred to, the salary and expenses of the Grader of Dairy Products, L. A. Gibson, were also paid from the grant.

Publicity: In January of the present year, Mr. George Butler was appointed Publicity Agent for the Department and shortly afterwards was placed in charge of the Publications Branch. In addition to supervising the printing and distribution of reports, bulletins, etc., a news letter is sent out containing agricultural intelligence, which is made wide use of by agricultural and local papers, while advertisements and posters announcing short courses are prepared and arranged for. The salary and expenses of this officer are met from the grant.

During the year assistance was given by the grant towards the printing of a number of leaflets, bulletins and reports issued by the Department, including among others one on "Woodworking Problems" for use in connection with Boy's and Girl's Club Contests.

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THE MANITOBA DEMONSTRATION FARM SYSTEM.

In the year 1912, the Minister of Agriculture for Manitoba, realizing the need for the adoption of better methods of soil cultivation and crop growing, and knowing that the best authorities on these subjects in Canada believed that the failure of farmers to follow a well-defined system of crop rotation was largely responsible for unsatisfactory results on many farms, submitted to the Honourable Minister of Agriculture for Canada a plan by which it was proposed to use part of the federal grant in establishing a series of demonstration farms or plots, for the purpose of bringing about an improvement in conditions. These Demonstration Farms were to consist of forty acres each, to be located on a main highway close to a town or village, the trading point for a recognized agricultural district.

Twelve of these farms, each consisting of 40 acres of leased land, were located during the summer of 1913, and two the following year. An agreement was entered into with the owner to perform such work as might be required by the Department at a rate which was agreed upon as satisfactory. The provincial Department of Agriculture had a substantial fence erected to enclose each farm and divided same into five acre fields, and heavy platform scales, as well as other implements, were purchased in order that the work might be satisfactorily carried on.

In 1914, the entire forty acres in each case were summer-fallowed, and the first crops were sown in the spring of 1915. The results from the grain fields in 1915, given in the statement below, may be considered as reasonably satisfactory. However, the better results that are to be looked for from a scientific rotation of crops cannot be expected until the system has been in operation for a term of years. About one-quarter of the total area was devoted to clover and alfalfa for which no return was made during the first year.

The Killarney Demonstration Farm.

The land on which the Killarney demonstration farm is being established was purchased in 1914, and has an approximate area of seventy-five acres. Sixty-two acres are either in crop, planted with fruit or ornamental trees and bushes, or included in the farmstead plan. The balance is waste, caused by the river and the lake outlet. This is fenced and used for pasture, so far as available.

This farm may be classed as a general purpose demonstration farm, with the growing of hardy varieties of fruits as its leading feature.

Buildings: House, 28 by 30, with kitchen and sleeping balcony on back, 12 by 14. Veranda across front and half way down each side, 10 feet wide.

Barn, 36 by 40, with 16-foot stud, arranged for stabling five horses, box stall and harness room, and six cattle stalls and a box stall.

Machinery shed, 22 by 50, with 8-foot stud. This shed is the size recommended for a half section and was erected to demonstrate this, as well as to shelter machinery used on the farm.

Poultry house, 14 by 28, accommodating one hundred hens.

Ice-house, 10 by 12.

Live Stock: There are at present two teams of horses on the farm, one heavy draught and one agricultural, and one grade cow. It is the intention to purchase good grade Shorthorn cows and breed up and select for milk production.

Field Husbandry: In 1915 there were about nineteen acres of corn planted, nine acres of oats seeded, and the balance of the farm summer-fallowed.

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In 1916 the farm was surveyed for a crop rotation, seed selection work and a small amount of cultural work. On the portion of the farm left unsurveyed for the present year feed is being produced. The rotation to be adopted on one acre plots is the following: (1) wheat, (2) oats, (3) barley, (4) corn, (5) wheat, (6) oats, (7) corn, (8) alfalfa.

Cultural Work: Rates of seeding of grasses and legumes are being tested on forty-two one-quarter acre plots; methods of summer-fallowing on twenty-one plots; varieties of wheat, oats, and barley on sixty-three plots. Six varieties of each are being tested. Two and a half acres were seeded with alfalfa for seed production, but due to the land being very weedy, it was necessary to plough this up for the season. One and a half acres were seeded with white sweet clover to cut and put in silo.

Seed Selection Work: A number of quarter-acre plots were laid out for seed selection work, with a view to starting a centre for seed improvement. This work is arranged in a rotation so as to test out varieties of corn, peas and roots.

Horticultural Work:

Planting 1915—

84 standard apples..	7 varieties.
48 crab apples..	4 "
12 Compass cherry..	1 "
24 plums..	2 "
36 gooseberry..	3 "
72 currants..	6 "
6 Beta grape..	1 "
349 raspberries..	7 "

No fruit trees or bushes planted in 1916, but a number of ornamental shrubs were set out and preparations are being made for a great deal of planting in the season of 1917.

DEMONSTRATION FARMS CROP REPORT, 1915.

Warren Demonstration Farm.

(Six-year rotation with alfalfa for six years continuously.)

Field No. 1.	Summer-fallow seeded to clover June 28.
" No. 2.	Corn.
" No. 3.	Wheat, 62 bushels per acre.
" No. 4.	Oats, 92 bushels per acre.
" No. 5.	Corn.
" No. 6.	Wheat, 60 bushels per acre.
" No. 7.	Alfalfa, seeded June 26.

Carberry Demonstration Farm.

(Rotation six years and alfalfa for six years continuously.)

Field No. 1.	Clover, sown June 11.
" No. 2.	Corn, frozen.
" No. 3.	Wheat, 26½ bushels per acre; No. 1 hard
" No. 4.	Oats, 74 bushels per acre.
" No. 5.	Fodder corn, killed by frost.
" No. 6.	Wheat, 25 bushels per acre; No. 1 hard
" No. 7.	Alfalfa, sown June 11.

Baldur Demonstration Farm.

(Rotation, six course and alfalfa.)

Field No. 1.	Oats, 16 bushels and 19 pounds per acre.
" No. 2.	Fodder corn; killed by summer frosts
" No. 3.	Wheat, 10 bushels and 47 pounds per acre.
" No. 4.	Summer fallow
" No. 5.	Wheat, 24 bushels per acre.
" No. 6.	Wheat, 33 bushels and 32 pounds per acre
" No. 7.	Alfalfa.

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Harding Demonstration Farm.

(Six-year rotation with alfalfa for six years continuously.)

Field No. 1.	Summer clover.
" No. 2.	Fodder corn, 1,924 pounds per acre.
" No. 3.	Wheat, 39 bushels and 8 pounds per acre.
" No. 4.	Oats, 104 bushels and 12 pounds per acre.
" No. 5.	Fodder corn, 9,720 pounds per acre.
" No. 6.	Wheat, 37 bushels per acre.
" No. 7.	Alfalfa.

Virden Demonstration Farm.

The Superintendent reported the yield of barley in 1914 as 960 bushels on 40 acres, or 24 bushels per acre.

Boissevain Demonstration Farm.

(Six-year rotation with alfalfa for six years continuously.)

Field No. 1.	Summer-fallow, seeded to Common Red Clover.
" No. 2.	Corn.
" No. 3.	Wheat, 18 and $\frac{3}{4}$ bushels per acre, badly blown out by wind.
" No. 4.	Oats, 65 bushels and 27 pounds per acre.
" No. 5.	Fodder corn.
" No. 6.	Wheat, 28 bushels and 56 pounds per acre.
" No. 7.	Alfalfa, first year.

Portage La Prairie Demonstration Farm.

(Six-year rotation with alfalfa for six years continuously.)

Field No. 1.	Summer-fallow, sown to clover in late summer.
" No. 2.	Ear corn, frozen.
" No. 3.	Wheat, 30 bushels per acre.
" No. 4.	Oats, 78 bushels per acre.
" No. 5.	Corn, spoiled by frost.
" No. 6.	Marquis wheat, 25 bushels per acre, blown by wind.
" No. 7.	Alfalfa, first year.

Souris Demonstration Farm.

(Six-course rotation, with alfalfa for six years continuously.)

Field No. 1.	Summer-fallow, seeded to clover.
" No. 2.	Corn, badly frosted.
" No. 3.	Wheat, 20 bushels per acre.
" No. 4.	Oats, 65 bushels per acre.
" No. 5.	Corn, badly frosted.
" No. 6.	Wheat, Marquis, 25 bushels per acre.
" No. 7.	Alfalfa, sown June 12.

Deloraine Demonstration Farm.

(Rotation six years and alfalfa for six years continuously.)

Field No. 1.	Summer-fallow.
" No. 2.	Seeded to clover.
" No. 3.	Wheat, 42 bushels per acre.
" No. 4.	Oats, 92 and $\frac{3}{4}$ bushels per acre.
" No. 5.	Fodder corn, frozen.
" No. 6.	Wheat, 40 bushels per acre.
" No. 7.	Alfalfa.

Somerset Demonstration Farm.

(Seven-year rotation, with alfalfa for seven years continuously.)

Field No. 1.	Wheat, 47 $\frac{1}{2}$ bushels per acre.
" No. 2.	Oats, 82.4 bushels per acre.
" No. 3.	Wheat, 48.70 bushels per acre.
" No. 4.	Fodder corn, frozen.
" No. 5.	Wheat, 49.23 bushels per acre.
" No. 6.	Barley, 45.86 bushels per acre.
" No. 7.	Corn, frozen.
" No. 8.	Alfalfa, sown 1915.

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St. Pierre Jolys Demonstration Farm.

This farm was summer-fallowed in 1914, but the sow thistles were not kept down, and it was decided to defer subdividing until 1916, and in the meantime to sow the land to some bulk crop. In 1915, Marquis wheat was sown on 30 acres and a part in fodder corn.

Elkhorn Demonstration Farm.

(Rotation seven course and alfalfa for seven years continuously.)

Field No. 1.	Wheat, 30 bushels per acre.
" No. 2.	Oats, 97 bushels per acre.
" No. 3.	Wheat, 36 bushels per acre.
" No. 4.	Corn, frozen.
" No. 5.	Wheat, 36 and $\frac{1}{2}$ bushels per acre.
" No. 6.	Barley, yield not stated.
" No. 7.	Fodder corn, frozen.
" No. 8.	Alfalfa.

Arborg Demonstration Farm.

About $1\frac{1}{2}$ acres of timber and scrub cleared and broken up in 1915. Surveyed during 1914-15. The whole farm fenced in 1915. A great deal of cleaning up and summer-fallowing in 1915 but none of the land was cropped.

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APPOINTMENTS PROVIDED BY THE DOMINION GRANT.

*(A) List of Persons, Regularly Employed, whose Salaries are Paid wholly from the
Agricultural Instruction Grant.*

Editor, Agricultural Publications, George Batho.
Instructor in Chemistry, A. J. Galbraith.
Instructor in Household Arts, Miss C. L. Groff.
Dairy Inspector, W. J. Crowe.
Inspector Dairy Produce, L. A. Gibson.
District Representative, L. V. Lohr.
" W. T. G. Wiener.
" N. S. Smith.
" R. M. Muckle.
" W. R. Roberts.
" J. H. Hudson.
" J. R. Bell.
" J. H. Kiteley.
" A. Skorobohacz.
" F. T. Boresky.
" F. F. Parkinson.
" S. J. Sigfusson.
Home Economics Lecturer, Miss E. Crawford.
" Miss Margaret Smith.
" Miss. A. Hay.

(B) List of Persons Receiving Part Salary from Federal Grant.

Professor of Animal Husbandry, F. S. Jacobs.
Secretary, Horticulture and Forestry, J. A. Neilson.
Accountant, J. P. Grant.

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4. BOYS' AND GIRLS' CLUBS.

Grant, 1915-16..	\$ 5,000 00	
Balance April 1, 1915..	1,434 75	
Expended to March 31, 1916..	\$ 5,901 15
Balance on hand March 31, 1916.. . . . .	.....	533 60
Total..	\$ 6,434 75	\$ 6,434 75
Eggs, potatoes, seed, supplies and incidentals, distributed to clubs		\$ 4,164 16
Fair grants..		1,414 20
Judging at fairs..		226 60
Services and expenses..		96 25
Total..		\$ 5,901 15

5. BULLETINS AND MISCELLANEOUS PRINTING.

Grant, 1915-16..	\$ 7,000 00	
Balance April 1, 1915..	23 75	
Expended to March 31, 1916.. . . . .	.....	\$ 6,173 57
Balance on hand March 31, 1916.. . . . .	.....	850 18
Total..	\$ 7,023 75	\$ 7,023 75
Printing, engraving, mailing and incidentals re leaflets on alfalfa, birds, spraying, hay and pasture, fodder corn, bees, rye, "Horticulturist"		\$ 2,499 13
"Wood Working Problems"		1,575 00
Printing College report..		1,065 00
		\$ 5,139 13
Advertising..		80 00
Geo. Batho, Publicity Agent, salary, 3 months..		624 99
" " travelling..		29 45
W. J. Abel, salary..		300 00
Total..		\$ 6,173 57

6. INSTRUCTORS IN PUBLIC AND HIGH SCHOOLS.

Grant, 1915-16..	\$ 200 00	
Balance "Farm Mechanics" April 1, 1915..	2,500 00	
Expended to March 31, 1916.. . . . .	.....	\$ 200 00
Balance on hand March 31, 1916.. . . . .	.....	2,300 00
Total..	\$ 2,700 00	\$ 2,700 00
Grant to Holland Consolidated school..		\$ 200 00

7. CONTRIBUTIONS AND MISCELLANEOUS.

Grant, 1915-16..	\$ 3,221 31	
Balance April 1, 1915—		
(15) Excursions..	1,000 00	
(19) Miscellaneous..	539 37	
Expended to March 31, 1916.. . . . .	.....	\$ 3,367 13
Balance on hand March 31, 1916.. . . . .	.....	2,961 94
Total..	\$ 4,760 68	\$ 4,760 68
Jan. P. Grant, accountant, salary..		\$ 753 33
W. Johnson, accounting..		123 00
W. Barker, printing..		40 00

CONTINGENCIES AND MISCELLANEOUS—*Concluded.*

Special services—			
J. B. Skaptason, accounting 3 years.. . . .	\$	300 00	
Mrs. Dickson.. . . .		200 00	
			\$ 500 00
Colin Smith, indemnity, accident at farm.. . . .	\$	600 00	
D. Harris.. . . .		400 00	
	\$	1,000 00	
Smith cheque refused and cancelled.. . . .		600 00	
			400 00
Printing, postage, stationery and incidentals.. . . .			684 05
Typewriter and furniture, office of Editor of Agricultural publications.. . . .			224 75
Total.. . . .	\$	3,157 12	

MANITOBA.

COMPARATIVE STATEMENT OF EXPENDITURE OF PROVINCIAL FUNDS FOR AGRICULTURAL PURPOSES FOR THE YEARS 1913, 1914 AND 1915, AND ESTIMATED FOR 1916.

Service.	1913	1914	1915	1916
	To Nov. 30.	To Nov. 30.	To Nov. 30.	To Nov. 30, Appropriations.
	\$ cts.	\$ cts.	\$ cts.	\$ cts.
Department—Salaries.....	14,729 97	14,700 00	14,555 00	13,700 00
Office Expenses.....	1,675 28	1,496 07	1,727 81	3,000 00
Agricultural Societies and Farmers' Institutes, Judging, Seed Fairs, etc.....	41,937 40	39,426 53	45,815 78	97,450 00
Supt. Agricultural Societies.....			2,300 00	
Agricultural Statistics.....	3,412 77	2,702 70	3,825 18	
Noxious Weeds Inspection.....	4,896 29	5,612 93	5,974 51	
Grants to Live Stock Associations, Winter Fairs, Exhibitions and Societies (Dom. Fair, \$20,000, special in 1913).....	36,473 00	19,229 00	5,707 72	
Manitoba Agricultural College—				
Salaries.....	68,393 02	76,190 00	103,709 95	273,498 35
Maintenance.....	36,461 85	52,172 71	65,791 83	
Fuel.....	12,537 55	40,342 06	35,337 25	
Totals.....	220,517 13	251,872 08	284,775 03	387,648 35
Revenue—				
Agricultural College fees, etc.	16,509 91	18,175 77	42,876 10	78,500 00
Net Total.....	204,007 22	233,696 31	241,898 93	309,148 35

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SASKATCHEWAN.

AGREEMENT, 1915-16.

1. College of Agriculture.. . . .	\$22,800 00
2. Instructors, Directors, Superintendents and District Representatives—Salaries and expenses.. . . .	27,600 00
3. Instruction and Demonstration in live stock, dairying, soils, crops, etc., including short courses.. . . .	7,000 00
4. Women's work.. . . .	4,500 00
5. Boys' and girls' work.. . . .	1,100 00
6. Bulletins and miscellaneous printing.. . . .	3,000 00
7. Instruction in Public, High and Normal Schools in Agriculture, Nature Study and Domestic Science, school gardens, training of teachers.. . . .	1,000 00
8. Contingencies and miscellaneous.. . . .	1,011 04
Total.. . . .	<u>\$68,011 04</u>

In this province the grant is divided into three parts, one part being disbursed by the College of Agriculture of the University of Saskatchewan, one by the Department of Agriculture, and one by the Department of Education.

DEPARTMENT OF AGRICULTURE.

The expenditure made by the Department of Agriculture is chiefly on account of demonstration and instruction. It includes the organization of co-operative marketing of farm products, the employment of travelling instructors in live stock, dairying and field husbandry and the operation of demonstration trains. In the case of the Co-operation and Markets Branch and the Demonstration Trains, the cost of the work is borne entirely by the grant. In other phases of the work, the grant supplements provincial funds.

Co-operative Organizations, \$4,100.

The educational and development work to promote co-operative production and marketing of farm products is in the hands of a director and an assistant, whose salaries and expenses are charged to the grant. Their principal work is to gather and disseminate information, and to encourage and assist organizations by aiding in drawing up articles of incorporation, by-laws, etc.; and by supplying speakers to give advice upon the particular line of work which the association has in view.

Of the 115 associations 16,687 shareholders reporting for 1915, 105 were engaged in co-operative purchasing and in live stock marketing, and 9 in other lines of business, the balance being recently organized.

A special effort had been made by the branch to encourage co-operative stock marketing and, in addition to distributing over 8,000 copies of a bulletin dealing with the subject, and supplying live stock marketing receipt and account forms free, a representative of the branch has since January 1, 1916, assisted 300 associations in handling their first shipments of stock. This representative assisted the local manager in receiving, marketing, grading and shipping the stock. He then proceeded to the terminal market, aided in selling the stock and showed the manager how to properly apportion the expenses and forward the returns to the farmers. By this means associations are encouraged to make a start, and when once they have experienced the benefits to be derived, further assistance will be unnecessary.

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The wool gathering project undertaken in 1914 was again conducted in 1915 with very satisfactory results. In 1914, 180 sheep owners, whose combined clip aggregated 69,404 pounds, marketed their wool through the branch, and realized an average net price of 16½ cents per pound. In 1915, 318 sheepmen sold 150,328 pounds of wool through the branch. The expense of handling, warehousing and insurance amounted to half a cent per pound. After deducting this and the cost of sacks, freight to Regina and cartage the net amount received by the farmers was 23.66 per pound.

This work will again be undertaken this season, and arrangements have already been made to have the wool graded by expert graders provided by the Dominion Live Stock Branch. This will enable the Branch to make payment on a quality basis and should induce a much larger proportion of the sheepmen of the province to market their wool clip through that office.

To encourage a greater production of poultry and poultry produce, a co-operative poultry marketing project was undertaken jointly by the Branch and the Poultry Husbandry Department of the College of Agriculture in the fall of 1915. The co-operation of the Canadian Northern Railway was secured, and a baggage car, fitted up as a poultry receiving and killing station, was provided and operated for six weeks, from October 25 to December 3, over C.N.R. lines in the northern portion of the province, 34 points being visited. The itinerary of the car was widely advertised and poultry raisers were invited to fit up their birds and bring them in alive to the car. Competent demonstrators from the College of Agriculture gave demonstrations in the proper methods of killing, plucking and packing. After the birds had been killed, plucked and graded, a representative of the Co-operative Organization Branch took delivery of them and made advance payments to the producers at graduated prices consistent with the quality of the birds. The poultry was then packed in boxes, placed in storage and subsequently sold, when a final payment was forwarded to the producers, who were thus paid every cent realized from the sale, less cost of boxes, transportation and storage charges.

During the period covered by this report the following quantities of literature relative to agricultural co-operative work have been distributed in the province:—

8,500 copies, Bulletin No. 41, Co-operative Live Stock Marketing.

10,500 copies, Bulletin No. 42, Suggested Lines of Co-operative Production.

6,500 copies of the Agricultural Co-operative Associations Act and Standard By-laws.

12,000 copies of Explanation of the Agricultural Co-operative Associations Act.

Animal Husbandry, \$4,682.

During the summer of 1915 three travelling instructors in animal husbandry were employed under the direction of the Saskatchewan Live Stock Commission, their salaries and expenses being paid out of the grant. These men assisted in the distribution of live stock and visited and advised purchasers regarding care and management. Their services in the advancement of the horse breeding industry were performed in connection with the administration of part 2 of the Horse Breeders Act, relating to inspection and licensing.

Dairying, \$3,290.85.

The salaries and expenses of two dairy instructors and the expenses of a third were paid out of the grant during 1915-16. One inspector was charged with the inspection of cream buying stations. Another of his duties is the inspection of districts from which requests have been received for the organization of new creameries, so as to determine their suitability. He also aids in organizing co-operative creamery com-

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panies where organization is deemed advisable. A third instructor relieves the managers of local creameries to enable them to visit creamery patrons and confer with them regarding methods by which their dairying operations can be improved. An important part of the work of the dairy instructors was the holding of special meetings - either in connection with special dairy car or otherwise. Ninety-one meetings were held with an attendance of 3,536.

Field Husbandry, \$1,714.

During 1915 two travelling instructors, graduates of the Manitoba Agricultural College, were employed under the direction of the Weeds and Soil Commissioner and paid out of the grant.

Much of the time of the field representatives was directed to the development of work among the boys and girls although matters connected with the administration of the Noxious Weeds Act also received their attention.

Demonstration Trains, \$9,424.

Two separate trains were equipped and operated for several weeks over the Canadian Northern and Canadian Pacific railways. One train was manned mainly by the regular staff of the department and was organized to give instruction in field husbandry, poultry raising, building construction and domestic science. One car was provided for giving illustrated lectures for boys and girls, and an empty coach was fitted with toys and equipment to entertain children too small to be interested in the educational features.

The second train, which operated from Saskatoon, carried two cars of live stock and a car of mechanical exhibits, as well as the usual lecture and demonstration cars for field husbandry, poultry husbandry and household science. Children's cars were provided. The lecture staff consisted mainly of members of the college staff.

About 38,000 people visited the train, comprising 18,000 men, 12,000 women, and 8,000 children, and its educational value becomes more apparent each season. The trains were provided free by the railway companies, and all expenses were met by the grant.

Short Courses for Veterinary Surgeons, \$500.

The second Summer School of the Saskatchewan Veterinary Association was held at the College of Agriculture, Saskatoon, August 4, 5, 6, 1915. A grant of \$500 for expenses was made out of the Dominion subsidy. Dr. L. A. Merillat, Professor of Surgery, McKillop Veterinary College, Chicago, Dr. C. D. McGilvray, Chief Inspector, Dominion Health of Animals Branch for Manitoba, as well as a number of Saskatchewan veterinarians, gave valuable lectures and demonstrations. The association published a report of its Short Course which contains much valuable information.

UNIVERSITY OF SASKATCHEWAN.

COLLEGE OF AGRICULTURE.

Salaries and general expenses

Accounting work.

\$24,000 00

1,714 00

\$25,714 00

The grant received by this institution contributes very materially to the instruction, research and extension work of the College of Agriculture. By far the greater portion of it is devoted to strengthening the college staff, as it is believed that in this way the objects aimed at can best be secured.

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The grant provides for the salaries of three professors—cereal husbandry, animal husbandry and poultry; of five assistant professors—animal husbandry, dairying, engineering, physics, and chemistry, and also of a director and a lecturer for women's work.

Each of the men in agriculture has been required to divide his attention between teaching, research and extension work. The following is a summary of the work performed by the extension service during the year: Short courses of from two to four days each, 35, with a total recorded attendance of 11,656; dairy meetings, 122; poultry shows, 25; two better-farming special trains; one poultry demonstration car and one dairy demonstration car; seed fairs, 84; standing crop competitions, 23; ploughing matches, 61; exhibitions, 113; stallion shows, 13.

A summary of the activities carried on by departments of the college, with which are associated the members of the staff who are provided for by the grant, will indicate the nature of the work performed by them, apart from that of teaching and college extension.

Cereal Husbandry: In this department important investigations, already extending over two years, are being undertaken, covering the following projects:

1. Variety testing for wheat, winter rye, and winter wheat, oats barley and flax. The test is designed to determine the relative value of the varieties experimented with, both for immediate results and as a basis for improvement.

2. Management: Under this head are included (a) a study of smut and its control; (b) a study of size and quality of seed in relation to its value for seeding purposes; (c) fanning-mill test in relation to seeding value of different grades of wheat and oats; (d) depth, dates and rates of seeding, dates of cutting, time of stooking, time of threshing.

3. Improvement of Cereals: (a) Wheat: yield, milling qualities, baking qualities, and earliness are the general considerations. The varieties being improved are Marquis, Red Fife, Bobs, Prelude, Hard Red Calcutta, Kubanka (Durum wheat) and certain Dr. Saunders varieties; (b) oats: resistance to loose smut, greater purity and freedom from inclination to produce false wild oats are the chief considerations. The varieties being improved are Banner, Victory, Gold Rain, Abundance, Ligowo, Daubeney; (c) barley: objects, purity and uniformity. The following varieties are being dealt with O.A.C. No. 21, Manchurian, Hannchen, Canadian Thorpe; (d) peas: objects, ease in germination, purity, productiveness. Varieties, Solo, Arthur, and others; (e) flax: nine varieties being studied for seed and oil purposes as well as fibre; (f) hybridization and cross-pollination tests for wheat and barley, and a test of the Gartons' regeneration theory.

Animal Husbandry: This branch is giving special attention to the building up of a dairy herd for teaching purposes. Similar work is being done in the sheep, swine and horse departments. Animals are supplied for the demonstration train. A poultry plant is operated with similar objects and purposes.

Homemakers' Clubs: The work of Homemakers' Clubs is carried on as a branch of the College Extension Service under the supervision of a director and an assistant. Over 160 of these clubs have been formed, including organizations among the Ruthenian population. The activities of the clubs have a wide range, including an active interest in every form of community work, in schools, hospitals, rest-rooms, and in the Red Cross and other patriotic movements. An annual convention is held at the university, the attendance this year being 300.

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DEPARTMENT OF EDUCATION.

AGRICULTURAL INSTRUCTION COMMITTEE.

To direct the policy of the department, which is to extend instruction in agriculture and household science to the public schools, high schools and normal schools, a committee known as the Agricultural Instruction Committee was appointed by the Minister of Education. This committee consists of the Superintendent of Education, the Deputy Ministers of Education and Agriculture, the Director of Extension Work of the College of Agriculture, the Dean of the College of Agriculture, the Professor of Agricultural Engineering, the Principals of the two Provincial Normal Schools and the two Directors of School Agriculture.

Directors, Salaries, \$6,000; Expenses, \$1,666.

In January, 1915, Miss Fannie A. Twiss was appointed Director of Household Science, and in May, Mr. F. W. Bates, M.Sc., and Mr. A. W. Cocks, B.Sc., were appointed, on the recommendation of the Agricultural Instruction Committee, Directors of School Agriculture. The duties of the two latter include the supervision of the teaching of agriculture and nature study in the schools of the northern half and the southern half of the province, respectively. The directors are also responsible for the instruction in the Normal Schools at Saskatoon and Regina, in agriculture, nature study, and school gardening. They also give lectures in agriculture, nature study and school gardening to the third class normal sessions which are held at various points throughout the province during the winter months. It has been found necessary for the directors to address a large number of meetings of teachers and the general public in order that the work of agricultural instruction may be carefully explained. These lectures have often been illustrated by means of lantern slides. A considerable portion of the directors' time is taken up with the organization of Rural Education Associations and school fair work.

Household Science.

The duties of the Director of Household Science, Miss Twiss, consist of the supervision of the teaching of household science in the schools of the province and therefore most of her time is occupied in inspection and in addressing trustees and ratepayers in order to encourage them to establish household science departments in the schools of the towns, villages and rural districts. Miss Twiss has been successful in persuading the school boards in several of the smaller towns to provide equipment for the teaching of household science, and in many rural districts the teachers are commencing this work by means of a noonday lunch. Miss Twiss lectures to the students at the Normal Schools and also to teachers at institutes and conventions.

Summer School, 1915.

The summer school which is held each year in July at the University of Saskatchewan, Saskatoon, provides special courses in agriculture, elementary science and household science for the teachers of the province. Teachers who satisfactorily complete a two-years' course are granted diplomas. The work of the school is under the supervision of the Directors who receive great assistance from the staff of the university. The charge against the grant includes the return railway fares of teachers satisfactorily completing the course, and the accommodation provided in the university residence at the rate of \$1 per day.

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School Gardens.

An attempt was made by means of circulars and addresses given by the directors to explain the aim of school gardens to teachers and ratepayers throughout the province. This was very successful, as evidenced by the increased number of school gardens during 1915. As no grant is made to a district on account of the school garden work the improvement is particularly gratifying. In many districts it is still almost impossible for the teacher and pupils to conduct a garden owing to destruction by gophers or to the unsatisfactory nature of the school grounds. The home gardens are always encouraged whether or not a garden on the school grounds is possible.

Improvement of School Grounds.

Arrangements were made with the Chief of the Tree-planting Division of the Division of the Dominion Forestry Farm, Indian Head, and with the Superintendent of the Provincial Nurseries, Regina, for the free distribution of trees and shrubs to school districts. The Directors supply school officials with instructions regarding the cultivation of the ground and in many cases with plans for the same. The grounds are inspected and when the Directors are satisfied that the land has been properly prepared, trees are supplied. As a result of this arrangement over one-hundred districts have commenced work which will result in considerable improvement of the school grounds.

School Fairs, \$220.

Prior to 1915, a few school fairs were conducted by teachers' associations and other organizations. Although no very systematic organization of this work was attempted, the Directors assisted at many school fairs by judging the exhibits and by speaking to the public on the subject of such exhibitions. Probably fifty school fairs were held in Saskatchewan during 1915.

Rural Education Associations.

As a result of the study of the school fair movement the Directors were able to formulate a policy, which has received the approval of the Agricultural Instruction Committee, whereby Rural Education Associations are being organized in the municipalities of the province. It has been decided that the rural municipality shall be taken as the unit for organization and that all teachers, trustees and individuals interested in education shall be encouraged to become members of the association.

The objects of these organizations are to promote and develop the use of the school garden as an educational factor, to organize school fairs, contests for boys and girls, boys' and girls' clubs, etc., to organize literary societies and to encourage the use of the school building as a community centre, in fact an attempt is being made to make these associations feel responsible for the general educational advancement of the whole community.

Publications \$1,446.

The following is a list of school agriculture circulars prepared by the Directors for the information and assistance of teachers and trustees:—

"No. 1, Distribution of Trees and Shrubs"; "No. 2, Suggestions for Teachers" (supplies information respecting birds and their importance to the farmer, native plants, garden tools, experiments and demonstrations for garden work, text books, etc.); "No. 3, Rural Education Associations"; "No. 4, Seed Catalogue for School Gardens"; "No. 5, School Fairs"; "No. 6, The School Garden", a bulletin of nearly 70 pages, dealing with all phases of the school garden movement in Saskatchewan.

Two other circulars, "Gardening for the Schools of Saskatchewan" and "Tree Planting for the Schools of Saskatchewan" have already been distributed and are proving to be of considerable assistance to both teachers and trustees.

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APPOINTMENTS PROVIDED BY THE DOMINION GRANT.

(A) *Officers, regularly employed, whose salaries are paid wholly from the Agricultural Instruction Grant.*

Field Representative, J. W. Hunter, Live Stock Branch, Department of Agriculture, Regina.

Dairy Inspector, J. A. McDonald, Department of Agriculture, Regina.

" P. E. Reed, Department of Agriculture, Regina.

Field Representative, L. C. Wirtz, Dairy Branch, Department of Agriculture, Wadena.

District Representative, J. G. Rayner, North Battleford.

Professor of Cereal Husbandry, G. H. Cutler, Saskatoon.

Professor of Animal Husbandry, A. M. Shaw, Saskatoon.

Assistant Professor of Animal Husbandry, W. H. J. Tisdale, Saskatoon.

Assistant Professor of Agricultural Engineering, J. MacGregor Smith, Saskatoon.

Professor of Poultry Husbandry, R. K. Baker, Saskatoon.

Assistant Professor of Dairying, K. G. MacKay, Saskatoon.

Assistant Professor of Physics, A. E. Hennings, Saskatoon.

Assistant Professor of Chemistry, T. Thorvaldson, Saskatoon.

Director of Women's Work, Miss A. DeLury.

Lecturer for Homemakers' Clubs, Miss Daisy Harrison.

Director, School of Agriculture, F. W. Bates, Department of Education, Saskatoon.

" " A. W. Cocks, Department of Education, Regina.

" " Miss F. A. Twiss, Dept. of Education, Regina.

(B) *Officers, regularly employed, whose salaries are paid in part from the Agricultural Instruction Grant.*

Director, Co-operative Work, W. W. Thomson, Department of Agriculture, Regina.

Assistant Director, Co-operative Work, *W. G. Mawhinney, Department of Agriculture, Regina.

(C) *Officers employed a part of each year whose salaries are paid from the Agricultural Instruction Grant.*

Field Representative, J. S. Fulton, Live Stock Branch, Department of Agriculture, Regina.

Field Representative, M. E. Tullis, Woods Branch, Department of Agriculture, Saskatoon.

Field Representative, Wm. Thomson, Woods Branch, Department of Agriculture, Verigin, Sask.

Field Representative, R. J. Lewis, Woods Branch, Department of Agriculture, Vaudreuil, Sask.

SASKATCHEWAN.

GRANT OF 1914-15 — SUMMARY STATEMENT, APRIL 1, 1915, TO SEPTEMBER 30, 1915.

Classification.	Balance brought for- ward April 1, 1915.	Expended to Sept. 30, 1915.	Un- expended.	Overexpended.
	\$ cts.	\$ cts.	\$ cts.	\$ cts.
1. School Courses in Agriculture and Domestic Science.....	5,817 76	5,534 01	283 75	
2. College of Agriculture.....	15,300 98	15,261 11	39 87	
3. Demonstrations in Animal Husbandry.....	3,478 46	3,465 50	12 96	
4. Demonstrations in Dairying.....	1,842 05	1,842 05		
5. Demonstrations in Field Husbandry and Weed Control.....	1,518 68	1,518 68		
6. Co-operation in Production and Marketing .	2,228 74	2,209 26	19 48	
7. Demonstration Trains.....	4,983 68	5,222 54		238 86
8. Veterinary Short Course.....	500 00	500 00		
Total..	35,670 35	35,553 15	356 06	238 86
Net balance				117 20

DETAILS OF EXPENDITURE APRIL 1, 1915, TO SEPTEMBER 30, 1915.

1. SCHOOL COURSES IN AGRICULTURE AND DOMESTIC SCIENCE.

Balance brought forward April 1, 1915.. . . .	\$ 5,817 76	
Expended to September 30, 1915.. . . .		\$ 5,534 01
Balance on hand Sept. 30, 1915.. . . .		283 75
Total.. . . .	\$ 5,817 76	\$ 5,817 76
Instructors, Directors and Superintendents, salaries.. . . .		\$ 3,199 97
“ “ “ expenses.. . . .		889 23
Boys' and girls' work, (Clubs, Competitions, Fairs, School Gardens, etc.).. . . .		220 00
Summer Schools, Regina and Saskatoon.. . . .		765 48
Bulletins, reports, printing, etc..		981 52
Contingencies and miscellaneous.. . . .		163 25
		\$ 6,219 45
Less refunds.. . . .		3 20
		\$ 6,216 25
Less accounted for in Report of 1914-15, p. 84.. . . .		682 24
Total.. . . .		\$ 5,534 01

Summer Schools: This item includes railway fares for teachers attending, subsistence of teachers, special lecturers and sundry supplies in connection with the summer schools held at Regina and Saskatoon.

2. COLLEGE OF AGRICULTURE.

Balance brought forward April 1, 1915.. . . .	\$ 15,300 98	
Expended to Sept. 30, 1915.. . . .		\$ 15,261 11
Balance on hand Sept. 30, 1915.. . . .		39 87
Total.. . . .	\$ 15,300 98	\$ 15,300 98

AGRICULTURAL INSTRUCTION ACT

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2. COLLEGE OF AGRICULTURE—Continued.

Instruction and Research: Salaries—

Six professors and assistant professors, part time..	\$ 1,687 68
Two assistants, full time..	2,800 00
Nine instructors and assistants..	2,791 44

Extension Work: Salaries—

Six professors and assistant professors, part time..	2,937 60
Director and Lecturer, women's work..	1,349 96
Women's work expenses..	1,672 09
Short courses in rural districts..	422 70

Total..	\$ 15,261 11
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3. DEMONSTRATIONS IN ANNUAL HUSBANDRY.

Balance brought forward April 1, 1915..	\$ 3,478 46	
Expended to Sept. 30, 1915..		\$ 3,478 46
Balance on hand Sept. 30, 1915..		12 54
	\$ 3,478 46	\$ 3,478 46

Salaries and Expenses—

	Salary.	Expenses.	
J. W. Hunter..	\$ 600 00	\$ 392 32	
R. W. Brett..	509 68	689 95	
J. S. Fulton..	423 19	849 35	
	\$ 1,532 87	\$ 1,932 68	\$ 3,465 50

4. DEMONSTRATIONS IN DAIRYING.

Balance brought forward April 1, 1915..	\$ 1,842 05	
Expended to September 30, 1915..		\$ 1,842 05
Total..	\$ 1,842 05	\$ 1,842 05

Salaries and Expenses—

	Salary.	Expenses	
J. A. McDonald..	\$ 750 00	\$ 356 35	
C. L. White..	270 97	185 95	
	\$ 1,020 97	\$ 542 30	

Expenses—		\$ 1,563 47
Investing Dairies..		187 84
operating dairy cars..		175 72
		\$ 1,942 05
Less Jas. Graham refund..		100 00
Total..		\$ 1,842 05

5. FIELD HUSBANDRY AND WOOD CROSSING.

Balance brought forward April 1, 1915..	\$ 1,518 68	
Expended to September 30, 1915..		\$ 1,518 68
Total..	\$ 1,518 68	\$ 1,518 68

Salaries and Expenses—

	Salary.	Expenses.	
A. J. McDonald..	\$ 500 00	\$ 348 91	
J. G. Raynor..	100 00	161 71	
E. H. Hawthorne..	481 88	981 87	
T. L. Guild..	100 00		
W. Hark..	86 84	78 34	
J. L. Brown..	66 66		
	\$ 1,694 96	\$ 1,196 73	

Expenses..		\$ 2,791 68
		0 00
Refund to Agricultural Societies' Convention..		\$ 2,796 68
		1 00
Total..		\$ 1,518 68

DEPARTMENT OF AGRICULTURE

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6. CO-OPERATION IN PRODUCTION AND MARKETING.

Balance brought forward April 1, 1915.. .. .	\$ 2,228 74		
Expended to September 30, 1915.. .. .	.....	\$	2,209 26
Balance on hand September 30, 1915.. .. .	.....		19 48
Total.. .. .	\$ 2,228 74	\$	2,228 74
Salaries and Expenses—			
W. W. Thomson.. .. .	\$ 900 00	\$ 60 50	
L. E. Kirk.. .. .	200 00	96 30	
W. G. Mawhinny.. .. .	167 74	—	
	\$ 1,267 74	\$ 156 80	
Printing.. .. .			\$ 1,424 54
Incidentals.. .. .			778 69
			6 03
Total.. .. .			\$ 2,209 26

7. DEMONSTRATION TRAINS.

Balance brought forward April 1, 1915.. .. .	\$ 4,983 68		
Expended to September 30, 1915.. .. .	.....	\$	5,222 54
Balance over expended September 30, 1915.. .. .	238 86		
Total.. .. .	\$ 5,222 54	\$	5,222 54
Salaries.. .. .		\$	1,350 62
Expenses.. .. .			2,474 75
Printing.. .. .			1,290 40
Equipment.. .. .			386 50
Incidentals.. .. .			12 59
		\$	5,514 86
Refund interest.. .. .			292 32
Total.. .. .		\$	5,222 54

8. VETERINARY SHORT COURSE.

Balance brought forward April 1, 1915.. .. .	\$ 500 00		
Expended to September 30, 1915.. .. .	.....	\$	500 00
Total.. .. .	\$ 500 00	\$	500 00
Grant to Saskatchewan Veterinary Association 1915.. .. .		\$	500 00

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SASKATCHEWAN.

GRANT OF 1915-16.

SUMMARY STATEMENT October 1, 1915, to March 31, 1916.

No.	Classification.	Grant 1915-16	Balance (Cr.) brought forward Oct. 1, 1915.	Total.	Expended to Mar. 31, 1916.	Balance on hand Mar. 31, 1916.
		\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.
1.	(College of Agriculture.....	22,800 00	39 87	27,339 87	13,725 44	13,614 43
1.	(Women's work.....	4,500 00				
2.	Instructors, directors, superintendents and district representatives—salaries and expenses....	27,000 00		27,000 00	7,914 53	19,085 47
3.	Instruction and demonstration in live stock, dairying, soils, crops, etc., including short courses.....	7,000 00	32 44	7,032 44	1,440 42	5,592 02
5.	Boys' and Girls' work.....	1,100 00		1,100 00		1,100 00
6.	Bulletins and miscellaneous printing	3,000 00		3,000 00	1,203 00	1,797 00
7.	Instruction in public, high and normal schools in agriculture, nature study and domestic science, school gardens, training of teachers.....	1,000 00	283 75	1,283 75	405 45	878 30
8.	Contingencies and miscellaneous. ...	1,011 04		1,011 04	162 00	849 04
	Interest accrued.		114 24	114 24		114 24
		68,011 04	470 30	68,481 34	24,900 00	43,581 34

DETAILS OF EXPENDITURE, OCTOBER 1, 1915, TO MARCH 31, 1916.

1.—COLLEGE OF AGRICULTURE.

Grant 1915-16—College of Agriculture.....	\$ 22,800 00	
—Women's work.....	4,500 00	
Balance brought forward, Oct. 1, 1915.....	39 87	
Expended to March 31, 1916.....		\$ 13,725 44
Balance on hand March 31, 1916.....		13,614 43
	\$ 27,339 87	\$ 27,339 87
Instruction and Research: Salaries—		
Six Professors and Assistants, part time.....		\$ 3,781 25
Two Professors, full time.....		1,999 98
Extension Work—		
Six Professors and Assistants, part time.....		3,118 71
Director and Lecturer in women's work.....		1,399 92
Short courses in rural districts.....		2,917 95
Expenses, women's work.....		507 65
Total.....		\$ 13,725 44

Names of six professors charged (part time) on item "Instruction and Research," and (part time) on "Extension Work":—

- J. McG. Smith, Assistant Professor Agricultural Engineering.
- R. K. Baker, Professor of Poultry.
- A. M. Shaw, Assistant Professor Animal Husbandry.
- G. H. Cutler, Second Professor Field Husbandry.
- W. H. J. Todale, Assistant Professor Animal Husbandry.
- K. G. McKay, Assistant Professor Dairying.

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Names of two professors charged (full time) on item "Instruction and Research":—

- A. E. Hennings, Assistant Professor Physics.
- T. Thorvaldsen, Assistant Professor Chemistry.

Names of director and lecturer on "Women's Work":—

- Miss A. Delury, Director.
- Miss D. Harrison, Lecturer.

2.—INSTRUCTORS, DIRECTORS, SUPERINTENDENTS AND DISTRICT REPRESENTATIVES—
SALARIES AND EXPENSES.

Grant 1915-16..	\$ 27,600 00	
Expended to March 31, 1916..		\$ 7,913 63
Balance on hand March 31, 1916..		19,686 37
	<u>\$ 27,600 00</u>	<u>\$ 27,600 00</u>

Department of Agriculture—

Live stock—	Salary.	Expenses.	
J. W. Hunter, Field Representative.	\$ 600 00	\$ 208 60	
J. S. Fulton, " ..	92 90	314 60	
			\$ 1,216 10

Weeds—			
E. Hawthorne..	\$ 159 43	\$ 36 05	
			195 48

Dairying—			
J. A. McDonald, Inspector..	\$ 750 00	\$ 92 50	
P. E. Reed, "	375 00	107 40	
F. M. Logan, Field Representative..		47 80	
L. C. Wirtz, "		76 10	
			1,448 80

Co-operative Work—			
W. W. Thomson, Dir. Co-op. work..	\$ 750 00	\$ 152 51	
John Ames..	30 00	55 31	
Expense..		1 70	
			989 52

Department of Education—

Miss Twiss..	\$ 799 98	\$ 519 64	
A. W. Cocks, Dir. of Sch. of Agric..	1,200 00.	142 74	
F. W. Bates, "	1,200 00	178 92	
Sundry Persons expenses..		22 45	
			4,063 73
			<u>\$ 7,913 63</u>

3.—INSTRUCTION AND DEMONSTRATION.

Grant 1915-16..		\$ 7,000 00	
Balances brought forward Oct. 1, 1915—			
"Demonstrations Animal Husbandry"..	\$12 96		
"Co-operation"..	19 48		
	<hr/>	32 44	
"Demonstration Trains".. . . . .		.....	\$ 238 86
Expended to March 31, 1916.. . . . .		.....	1,201 56
Balance on hand March 31, 1916.. . . . .		.....	5,592 02
		<hr/>	<hr/>
		\$ 7,032 44	\$ 7,032 44

Better Farming Train—

Maintenance and travelling..	\$ 1,076 73	
Wages..	90 00	
Equipment..	34 83	
		\$ 1,201 56

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6.—BULLETINS AND PRINTING.

Grant 1915-16..	\$ 2,000 00	
Expended to March 31, 1916..		\$ 1,253 03
Balance on hand March 31, 1916..		1,746 97
	<u>\$ 2,000 00</u>	<u>\$ 3,000 00</u>

Department of Agriculture—

Lithographing for Weed Bulletin..	\$ 595 00	
Printing for Dairy Instruction..	24 91	
Printing for Co-operative work..	157 39	
		<u>\$ 787 07</u>

Department of Education—

Seed Catalogue for School Gardens..	\$ 143 70	
Pamphlet, "Suggestions for Teachers"..	88 40	
Pamphlet, "Rural Education Associations"..	95 66	
Office supplies..	67 95	
Postage for distribution of publications..	50 00	
Multigraphing circular letters..	20 25	
		<u>465 96</u>
		<u>\$ 1,253 03</u>

7.—SCHOOL INSTRUCTION IN AGRICULTURE.

Grant 1915-16..	\$ 1,000 00	
Balance brought forward Oct. 1, 1915—		
"School Courses in Agriculture and Domestic Science"	283 75	
Expended to March 31, 1916..		\$ 367 07
Balance on hand March 31, 1916..		616 73
	<u>\$ 1,283 75</u>	<u>\$ 1,283 75</u>

Education Department—

Summer School—		
Railway fare..	\$ 5 45	
Subsistence of teachers at Summer School, Saskatoon..	400 00	
		<u>\$ 405 45</u>
Less refund of interest to Oct. 30, 1915..		38 78
		<u>\$ 367 07</u>

8.—CONTINGENCIES AND MISCELLANEOUS.

Grant 1915-16..	\$ 1,011 04	
Expended to March 31, 1916..		\$ 162 02
Balance on hand March 31, 1916..		849 02
	<u>\$ 1,011 04</u>	<u>\$ 1,011 04</u>
Education Department—		
Classroom apparatus..		84 10
Balopticon and accessories..		78 92
Agricultural Instruction Committee..		6 21
		<u>\$ 162 02</u>

SASKATCHEWAN.

COMPARATIVE STATEMENT of Expenditure of Provincial Funds for Agricultural purposes for the Years 1913, 1914, 1915, and estimated Expenditure for 1916.

Service.	1913-14. To April 30.	1914-15. To April 30.	1915-16. To April 30.	1916-17. To April 30. (Estimated.)
	\$ cts.	\$ cts.	\$ cts.	\$ cts.
Department Salaries and General Expenses	41,186 38	39,536 09	66,347 93	40,795 00
General Agricultural Interests—Agricultural Societies; Provincial Organization; Grants; Contingencies	56,148 90	67,739 52	68,549 34	67,600 00
Live Stock Industry.....	68,575 84	23,593 85	35,636 95	30,300 00
Dairy and Poultry Industries	471,272 25	84,600 63	87,986 43	71,100 00
Agricultural Statistics and Publicity.....	33,413 43	36,404 16	26,635 82	26,900 00
Bacteriological Laboratory.....	8,111 11	8,443 74	8,040 88	8,400 00
Weed Control and Game Protection.....	18,398 52	19,588 94	18,272 69	8,900 00 Woods 10,100 00 Game.
Bureau of Labour—				
Farm and domestic labour and factory inspection.....	55,542 00	8,968 35	7,594 60	9,600 00
Miscellaneous Services—				
*Vital statistics; Natural History, Scholarships, Brands, etc., expenses under Agricultural Instruction Act	27,892 19	24,352 72	21,235 31	9,100 00
Totals.	789,540 62	337,228 00	340,299 95	282,795 00
Less Revenue.....	532,340 78	179,291 51	104,283 41	95,500 00
	228,199 84	175,936 49	236,016 54	187,295 00
Education Department—				
College for Agricultural Extension.	24,000 00	24,000 00	24,000 00	24,000 00
Manual training and domestic science organization			1,800 00	1,800 00
Grand Total.....	252,199 84	181,936 49	261,816 54	213,095 00

*Note.—Vital Statistics transferred to Bureau of Public Health at beginning of fiscal year 1914-15.

ALBERTA.

AGREEMENT, 1915-16.

1. Schools of Agriculture—			
(a) Maintenance.. . . .	\$ 36,000 00		
(b) Equipment and buildings.. . . .	2,000 00		
		\$	38,000 00
2. Provincial Instructors—Salaries and Expenses—			
Dairying.. . . .			4,000 00
3. Instruction and Demonstration—			
(a) Demonstration farms.. . . .	\$ 3,200 00		
(b) Demonstration trains.. . . .	5,000 00		
(c) Dairying.. . . .	3,000 00		
			11,200 00
4. Women's work.. . . .			1,500 00
5. Bulletins and publications.. . . .			1,800 00
6. Miscellaneous.. . . .			28 82
Total.. . . .		\$	56,528 82

SCHOOLS OF AGRICULTURE.

In the report for 1914-15 the Alberta Schools of Agriculture were fully described, and an outline given of the courses in agriculture and household science; but in view of the fact that considerably more than half the grant is expended on these schools, it will perhaps not be amiss to again draw attention to the leading facts connected with them.

The plan adopted by Alberta for instructing farm boys in the business of farming and girls in home economies, differs from that in vogue in provinces where agricultural education is centralized at a provincial college. It is not necessary, in order to qualify for admission to the Alberta schools that pupils shall have completed a high school or even a grade course. Another feature is that students are not compelled to attend a college situated a long way from their homes, but find close at hand a school of low cost where they can acquire instruction of a kind to fit them for life on the farm. The schools are designed to meet the needs of the people on the land for instruction in sound farming methods, irrespective of race, religion, scholastic attainment or money resources.

Some will, doubtless, look beyond this to higher spheres. For such provision is made at the University of Alberta, where, after a two-years' course at one of the schools of agriculture the student may take up advanced work during the three-year course provided at the college.

In connection with each school a demonstration farm is being operated, where practical application is made of the instruction given in the school; but these farms are not more pretentious than any young farmer might reasonably look forward to possessing.

The schools have now completed the third year of operation. This year the total enrolment was 336, as compared with 285 for the previous year. A noteworthy feature was the increase in the number of girls taking the domestic science course, the figures being 79 for 1914-15, and 102 for 1915-16. These figures give evidence of the success of the schools, and also of the increasing interest which the farmers of the province are taking in them.

7 GEORGE V, A. 1917

During the past year, many improvements were effected, making for the more efficient handling of the increasing number of students. The teaching staffs were augmented, and a new building erected at each of the schools, consisting of a large stock-judging pavilion with an agronomy laboratory overhead.

The members of the second graduating class, who have just completed their two-years' course and received their diplomas, number seventy. Thirteen men of the '15 class have been this winter continuing their study of scientific agriculture at the University of Alberta, where the recently created faculty of agriculture provides a three-year course leading to the B.S.A. degree. The work at Edmonton is a continuation of that at the schools of agriculture.

Up to the present over forty men from the three schools have enlisted.

Maintenance, \$28,088: Buildings and Equipment, \$3,557.

The cost of maintaining the schools of agriculture is charged to the grant. By expenditure for maintenance is understood the disbursement of all moneys incidental to the operating of the schools, such as payments of regular and special instructors, clerical and janitor help, fuel, printing, express, telephone, etc., the largest item being the salaries of the staff. The regular staff of each school consisted during the year of the following:—

Four male instructors for the four standard departments of field husbandry, animal husbandry, farm mechanics and science, the subjects of English farm mathematics and farm book-keeping being allotted or distributed according to the fitness of special lecturers for this general type of work. This year, 1916, an additional lecturer has been added in one school to relieve the principal, whose duties of general administration, correspondence and instruction were increased by the large attendance. Three special lecturers in veterinary science, dairying and poultry, do most of the work for the three schools. Three lady instructors are required for the work in household science, which included cooking, plain and fancy sewing, laundering and home nursing.

In addition to instruction by the recognized staff, occasional lectures or courses of lectures are given by officials of the department and others, on subjects in which they have specialized.

Seed Growing Competitions.

Early in 1915, the first competition in the production of alfalfa seed was arranged among the students of the three schools of agriculture, Olds, Vermilion and Claresholm. The contestants, fifty in number, were supplied with Alberta-grown seed, donated by Mr. W. A. McGregor of Medicine Hat. This was sown in the spring of 1915 and will be harvested this year, the students being advised in both operations by the instructors of field husbandry attached to the school staffs.

The prize money, comprising fifty dollars to each school, was voluntarily donated by three lumber companies doing business in the province. These companies have taken a great interest in the competitions from the start, their representatives visiting many of the students' home plots, accompanied by the field instructor. So well convinced were they that great benefits were likely to result that, in 1916, they again offered prizes for a new competition, to be concluded in 1917, thus giving the freshmen classes a chance to take part.

Already, in each of the fifty neighbourhoods where the plots have been started, interest is being aroused in this crop, and it is expected that the results will be felt over a large portion of the province. But this is not the only, nor indeed, the chief result that may be looked for: the principle underlying the movement goes far deeper.

SESSIONAL PAPER No. 15c

What is being done in alfalfa is also being worked out in many other lines, but the alfalfa competitions serve as an illustration. The undertaking not only promotes alfalfa growing, and thus benefits the agriculture of the province, but it affords the students an opportunity of applying in a practical way, on their home farms, the principles taught them at the schools of agriculture. This is the really important result from an educational point of view, and serves to illustrate the very practical manner in which the schools are being conducted.

INSTRUCTION AND DEMONSTRATION.

Demonstration Farms, \$5,916.

The Provincial Demonstration Farms are seven in number and are situated at Medicine Hat, Claresholm, Olds, Sedgewick, Vermilion, Stony Plain and Athabaska. It will be seen that they are widely distributed, thus serving different parts of the province. The leading reasons for their establishment are:

1. To illustrate the best practice in soil treatment, cropping, and the care of live-stock, for the instruction of the people of the district in which the farms are situated, and also those of districts where soil and climatic conditions are similar. The practice of the farms is intended for illustration and inspection, but later the results will be embodied in reports.

2. To furnish suitable accommodation and occasion for farm meetings and conventions.

3. To furnish object teaching and chances for observation to the pupils of the Schools of Agriculture, who are practically all from farms.

4. To provide types and breeds of live stock for the animal husbandry teaching of the schools.

5. To furnish pure-bred stock, pure seed, and farm building plans to those in need of them.

6. To conduct dairy and feeding tests for the improvement of stock interests of the neighbourhood.

Dairying, \$1,258.

Dairying forms a prominent feature in the work carried on in connection with the demonstration farms and schools, conducted by the Department of Agriculture of the province. As part of this work, demonstrations have been given as to the capacity of the double-purpose Shorthorn as a milk producer.

Under the allotment to Demonstration Farms are included the purchase of pure-bred stock for demonstration purposes such as the Dairy Shorthorn bull, "Director," the Holstein "King Segis Pentlar Alberts II" and the Jersey, "Brampton's Safety First." Coupled with the cost of the animal is the cost of transportation, insurance, etc.

The expenditure under educational dairying includes the expense of carrying on testing and instruction in testing work, the purchase of equipment, printing and the purchase of prizes. All prizes consist of pure bred live stock. Mr. S. G. Corbitt, Superintendent and Dairy Expert for the Demonstration Farms, had charge of this work, and his salary and expenses are provided for under Section 2.

Demonstration Tour, \$1,400.

A very complete itinerary was carried out during the year. This included sections of the Canadian Pacific, Grand Trunk Pacific, Canadian Northern and Edmonton and Dunvegan railways. Seventy points were visited, the chief work being done on the newer lines. The services and exhibits included the interests of live stock, seeds and seeds, agricultural schools, demonstration farms, women's work of all kinds, dairying, poultry, and game conservation and protection.

7 GEORGE V, A. 1917

Women's Work, \$1,486.

The work of the Department on behalf of women takes account of the organization of institutes, lectures at institutes, short course schools, and the distribution of special bulletins and other literature. The grant was used on account of salaries, printing, travelling and advertising.

Bulletins and Publications, \$776.

The department has recently added to its services a publications branch, through which the reports and bulletins of the department may be critically and carefully prepared. The office is intended to act as an intelligence service for the activities of the department in its relations with other departments, other governments and the press. It is regarded as an important branch of extension service in that its issues are of responsible and accurate character. It is likewise intended to serve as an office for the gathering of classified information on agricultural, extension and administrative matters. The allotment for bulletins and publications is devoted to supporting this service.

SESSIONAL PAPER No. 15c

APPOINTMENTS PROVIDED BY DOMINION GRANT.

(A) *Officials whose salaries are paid wholly from the Agricultural Instruction Grant:—*

Instructor in Dairying and Dairy Farming, S. G. Carlyle, Department of Agriculture, Edmonton.

Editor of Publications, Jas. McCaig.

Stenographer.

(B) *Officials whose salaries are paid in part from the Agricultural Instruction Grant:—*

VERMILION SCHOOL.

Principal, F. S. Grisdale, Vermilion.

Stenographer.

Instructor in Science, E. S. Hopkins, Vermilion.

Instructor in Farm Mechanics, L. Shanks, Vermilion.

Instructor of Animal Husbandry, H. H. McIntyre, Vermilion.

Plotman, Robt. Pilkie, Vermilion.

Instructor in Domestic Science, Fern Hotton, Vermilion.

Assistant Instructure in Domestic Science, A. M. Lavalee, Vermilion.

Nurse, Annie McKenzie, Vermilion.

OLDS SCHOOL.

Principal, W. J. Elliott, Olds.

Field Husbandry, A. E. Meyer, Olds.

Agricultural Mechanics, G. R. Holeton, Olds.

Instructor in Science, Jas. G. Taggart, Olds.

Agronomist, O. S. Longman, Olds.

English Instructor, J. H. McNally, Olds.

Instructor, Household Science, Miss Elizabeth Cumming, Olds.

Stenographer, Miss Isabella Ore, Olds.

Labourer, L. Neary, Olds.

CLARESHOLM SCHOOL.

Principal, W. J. Stephen, Claresholm.

Instructor in English and Elementary Science, J. C. Hopper, Claresholm.

Instructor, Animal Husbandry, H. W. Scott, Claresholm.

Instructor, Domestic Science, Myrtle A. Hayward, Claresholm.

Assistant Instructor, Domestic Science, Grace Robertson, Claresholm.

Teacher, A. E. Qually, Claresholm.

Teacher, A. Faulkner, Claresholm.

Stenographer, Mabel Moir, Claresholm.

Teamster, B. Andrews, Claresholm.

WOODS' INSTITUTE.

Superintendent, Miss Mary Melness, Department of Agriculture, Edmonton.

Stenographer, Miss Helen Hutchings.

ALBERTA.

GRANT, 1915-16, \$56,528.82.

STATEMENT FOR THE YEAR ENDING MARCH 31, 1916.

No.	Classification.	Grant 1915-16.	Balances, April 1, 1915.	Total.	Expended to Mar. 31, 1916.	Balances Carried Forward.	
						Un- expended.	Over- expended.
		\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.
1	Schools of Agriculture—						
	(a) Maintenance. 36,000			36,000 00	29,570 37	6,429 63	
	(b) Equipment. 2,000	3,000 00	{ 2,239 91 763 60	5,003 51	4,677 24	326 27	
2	Provincial Instructors—						
	Dairying.	4,000 00	72 55	4,072 55	3,919 99	152 56	
3	Instruction and Demonstration—						
	(a) Demonstration Farms. 3,200		309 90	3,509 90	5,916 42		2,406 52
	(b) " Trains. 5,000			5,000 00	4,957 12	42 88	
	(c) Dairying. 3,000	11,200 00	2,457 71	5,457 71	3,338 52	2,119 19	
4	Women's Work.	1,500 00	13 95	1,513 95	1,486 34	27 61	
5	Bulletins and Publications.	1,800 00		1,800 00	775 99	1,024 01	
6	Miscellaneous.	28 82	777 81	806 63		806 63	
						10,928 78	
						2,406 52	
		56,528 82	6,635 43	63,164 25	54,641 99	8,522 26	

INTEREST ACCOUNT.

March 31, 1915, Accrued Interest.....	\$299 15
March 31, 1916 "	343 70
	<u>\$642 85</u>

1.—SCHOOLS OF AGRICULTURE.

(a) Maintenance.

Grant, 1915-16..	\$ 36,000 00	
Balance April 1, 1915 "Operation".....		\$ 1,482 67
Expended to March 31, 1916..		28,087 70
Balance carried forward..		6,429 63
Total..	\$ 36,000 00	\$ 36,000 00
Salaries, Olds, Vermilion, Claresholm..		\$ 19,172 94
Services—		
W. H. Scott, teacher..	\$ 300 00	
D. Chalmers..	120 00	
W. R. Barker..	50 00	
Office assistance..	60 00	
		\$ 530 00
Supplies, repairs, travelling, stationery, incidentals..		8,384 76
Total..		\$ 28,087 70

Supplies include laboratory, dairy, laundry, chemical and physical supplies.

SESSIONAL PAPER No. 15c

1.—SCHOOLS OF AGRICULTURE.

(b) *Equipment and Buildings.*

Grant, 1915-16..	\$ 2,000 00	
Balances April 1, 1915—		
"Equipment"	2,239 91	
"Buildings"		\$ 1,120 61
"Library"	763 60	
Expended to March 31, 1916..		3,556 63
Balance carried forward..		326 27
Total..	\$ 5,003 51	\$ 5,003 51

Farm implements, teaching appliances..		\$ 2,968 97
Books for Library..		390 50
Buildings Account—		
Balance of contract and extras Vermilion, box stalls, Brimacombe and Glassford..	\$ 122 41	
Claresholm, box stalls, labour and material..	74 75	
		197 16
Total..		\$ 3,556 63

Building account: Supplementary expenditure in box stall barns built in previous years.

2.—PROVINCIAL INSTRUCTORS.

Dairying (Salaries and Expenses).

Grant, 1915-16..	\$ 4,000 00	
Balance April 1, 1915..	72 55	
Expended to March 31, 1916..		\$ 3,919 99
Balance carried forward..		152 56
Total..	\$ 4,072 55	\$ 4,072 55

S. G. Carlyle, salary..		\$ 3,250 00
General expenses		669 99
Total..		\$ 3,919 99

3.—INSTRUCTION AND DEMONSTRATION.

(a) *Demonstration Farms.*

Grant, 1915-16..	\$ 3,200 00	
Balance April 1, 1915..	309 96	
Expended to March 31, 1916..		\$ 3,916 42
Balance carried forward..	2,406 52	
Total..	\$ 5,916 42	\$ 5,916 42

Purchase of breeding stock		\$ 3,707 45
Insurance		411 99
Incidentals		88 87
R. C. Davidson, buildings, Athabaska..		1,808 64
Total..		\$ 5,916 42

The expenditure for buildings at the Athabaska Farm covered contract price of horse barn and implement shed.

3.—INSTRUCTION AND DEMONSTRATION.

(b) *Demonstration Trains.*

Grant, 1915-16..	\$ 5,000 00	
Expended to March 31, 1916.. . . . .	.....	\$ 4,957 12
Balance carried forward.. . . . .	.....	42 88
Total..	<u>\$ 5,000 00</u>	<u>\$ 5,000 00</u>
Materials, supplies, labour, advertising and incidentals..		\$ 4,175 22
Meals and berths..		781 90
Total..		<u>\$ 4,957 12</u>

3.—INSTRUCTION AND DEMONSTRATION.

(c) *Dairy Competitions.*

Grant, 1915-16..	\$ 3,000 00	
Balance April 1, 1915..	2,457 71	
Expended to March 31, 1916.. . . . .	.....	\$ 3,338 52
Balance carried forward.. . . . .	.....	2,119 19
Total..	<u>\$ 5,457 71</u>	<u>\$ 5,457 71</u>
A. Lamont, Milk Tester, salary..		\$ 735 48
MacNeill, services..		55 00
Office assistance..		165 00
Live stock prizes..		1,370 50
Supplies, equipment and incidentals..		662 54
Carlyle, expenses..		350 00
Total..		<u>\$ 3,338 52</u>

4.—WOMEN'S WORK.

Grant, 1915-16..	\$ 1,500 00	
Balance April 1, 1915—		
“Domestic Science”..	13 95	
Expended to March 31, 1916.. . . . .	.....	\$ 1,486 34
Balance carried forward.. . . . .	.....	27 61
Total..	<u>\$ 1,513 95</u>	<u>\$ 1,513 95</u>
Salaries: Miss Mary MacIsaac and Miss Carlyle..		\$ 600 00
Printing and stationery..		536 83
Supplies, travelling and incidentals..		349 51
Total..		<u>\$ 1,486 34</u>

5.—BULLETINS AND PUBLICATIONS.

Grant, 1915-16..	\$ 1,800 00	
Expended to March 31, 1916.. . . . .	.....	\$ 775 99
Balance carried forward.. . . . .	.....	1,024 01
Total..	<u>\$ 1,800 00</u>	<u>\$ 1,800 00</u>
Jas. G. McCaig, salary..		\$ 435 48
Minute and hand-books..		327 74
Incidentals..		12 77
Total..		<u>\$ 775 99</u>

SESSIONAL PAPER No. 15c

6.—MISCELLANEOUS.

Grant, 1915-16..	\$	28 82		
Balance April 1, 1915..		777 81		
Balance carried forward.. . . . .		.....	\$	806 63
Total..	\$	806 63	\$	806 63

ALBERTA.

COMPARATIVE STATEMENT OF EXPENDITURE OF PROVINCIAL FUNDS FOR AGRICULTURAL PURPOSES FOR THE YEARS 1913, 1914, 1915, AND APPROPRIATIONS FOR 1916.

Service.	1913.	1914.	1915.	1916 Appropriations.
	\$ cts.	\$ cts.	\$ cts.	\$ cts.
Civil Government	30,329 50	36,911 29	48,329 94	49,220 00
Live Stock—				
Live Stock and Agricultural Institutes and Associations; Fat Stock Shows; Destruction of Wolves; Stock Inspection; Brands and Brand Book; Grants to Live Stock Associations; Spring Stock Show	44,789 78	60,981 07	47,736 83	46,100 00
Fairs and Exhibitions—				
Official Judges, Production of Pure Seed Grain, and Seed Fair, Fairs Association, etc., &c.	96,826 51	107,363 47	117,226 18	121,200 00
Poultry—				
To encourage Poultry Industry; Grant to Poultry Association	8,972 65	8,547 83	8,340 37	8,200 00
Dairying—				
Advances to Creameries; to encourage dairy work.	111,710 36	175,024 81	249,851 29	19,300 00
Demonstration Farms—				
Administration and operation	73,620 58	66,840 44	70,291 95	65,000 00
Schools of Agriculture—				
Operation; Agricultural instruction; Scholarships.	3,006 25	1,373 49	20,503 11	20,200 00
Statistics; Protection of Game Prairie Fires	34,279 19	48,673 26	46,371 79	32,200 00
Grant—				
United Farmers Irrigation Association, Women's Institutes, Destruction of Noxious Weeds, Natural History Society	30,391 45	41,708 05	27,640 00	30,300 00
Bacteriological and Pathological Work	7,705 80	9,000 00	9,000 00	
Sundries and Contingencies	1,003 51	500 00	1,694 19	1,000 00
	442,425 08	546,627 70	645,780 25	698,320 00
Less Revenue	202,268 09	272,315 08	343,080 00	
	240,157 08	274,312 70	302,700 25	

BRITISH COLUMBIA.

AGREEMENT 1915-16.

1. Appointment of Inspectors, Instructors, Directors, Superintendents, and District Representatives—Salaries and expenses.. . . .	\$ 10,000 00
2. Farm demonstration and experimental work, field crop competitions, cow testing associations, poultry demonstration stations, co-operative variety tests.. . . .	18,000 00
3. Horticultural demonstration stations, experimental work in vegetable growing and greenhouse work, pathological and entomological investigation work, demonstration and experimental work in various cultural practices in fruits and vegetables.. . . .	8,500 00
4. Boys' and Girls' field crop competitions, fairs, etc.. . .	2,000 00
5. Bulletins, reports, circulars and miscellaneous printing.. .	2,000 00
6. Department of Education, towards agricultural instruction in Public, Normal and High Schools.. . . .	15,000 00
7. Contingencies and miscellaneous, not included in above items.	2,765 94
Total.. . . .	\$ 58,265 94

The Department of Agriculture for British Columbia has adopted the policy of instruction through demonstrations as the best means of expending the grant placed at its disposal by the Dominion; and the major portion of the grant is devoted to such purposes.

For carrying out the work performed by the Department of Agriculture, the salaries and expenses of sixteen officials are paid wholly or in part from the grant. These comprise the following: A market commissioner, three veterinary inspectors, four assistant horticulturists, two assistant agriculturists, a plant pathologist, a silo demonstrator, soil and crop instructor, foul brood instructor, caretaker, egg-laying contest, and a caretaker of demonstration plots.

FARM DEMONSTRATION AND EXPERIMENTAL WORK.

Instructors and Inspectors salaries.. . . .	\$ 9,687 00
General disbursements and travelling.. . . .	16,701 00

Demonstration Stations.

Twelve demonstration stations, varying in size from four to thirteen acres, are operated under an agreement with the owner of the land, who carries out the work under the direction and supervision of the Soils and Crops Division of the Live Stock Branch of the Department:—

District.	Crop.
Chilliwack.. . . .	Fodder Crop Rotation.
Armstrong.. . . .	"
Edgewood.. . . .	"
Grand Forks.. . . .	"
Rock Creek.. . . .	"
Parksville.. . . .	Demonstration station of 13 acres.
Hazelton.. . . .	Mixed Crops.
Telluswa.. . . .	"
Aldermere.. . . .	"
Francois Lake.. . . .	"
Ootsa Lake.. . . .	"
Nechaco Valley.. . . .	"

SESSIONAL PAPER No. 15c

Alfalfa Plots.

The following alfalfa plots, consisting of one acre each, are operated in order to find out the suitability of different districts for growing this fodder crop, and the best varieties to be grown:—

District.	Location.
Courtenay..	Courtenay.
Saltspring Island..	Ganges Harbour.
Howe Sound..	Gibson's Landing.
Rosehill..	Rosehill.
Nakusp..	Nakusp.
Burton..	Burton.
Edgewood..	Edgewood.
Sidley..	Bridesville.
Rock Creek..	Rock Creek.

Very valuable results have been secured from the operation of these demonstrations and alfalfa plots. The work of the Department in this connection is much appreciated by all farmers in the districts in which these plots have been placed. It is actual demonstration work. The farmer does the work under the Department's supervision, thus leading him to adopt correct principles of farming. Valuable information has also been secured as to the varieties of grain, fodder crops, fruits, etc., for the different districts. The principle of correct crop rotation has been encouraged amongst farmers, and generally the results accomplished by the operation of these plots are very encouraging to the Department.

Poultry Breeding Stations.

During the past fiscal year, twenty breeding pens of pure-bred fowls were sent out to the newer districts of the province, in order to get a good strain of poultry introduced. The pens consisted of twenty hens and two cockerels. They were supplied to reliable men who undertook to take charge of them according to directions from the Department, and to sell all the eggs from them to neighbouring farmers at a price not to exceed \$1 a setting. The quality of the poultry in the different districts has been very much improved by this means.

Selected Seed Distribution.

Under this section, a comprehensive scheme of selected seed distribution has been undertaken through farmers' institutes. The seed ordered by each secretary is forwarded to him for distribution to members. Freight charges are paid by the Department. Oats, wheat, alfalfa, corn, and mangel seeds were distributed by this method.

The Department states that "one has only to travel through the different parts of the province to see the splendid results that have been accomplished by this work. Not only has the average in crop been increased materially, but the yield per acre has shown a very marked increase since we started this work."

Egg-laying Contest.

An international egg-laying contest has been held in Victoria for the last two years, and is operated under this section. Splendid records of egg production have been made each year, and valuable information afforded to poultrymen as to proper balanced feeding rations and care of poultry. There is a constant stream of visitors to this contest, who are eager to obtain all information from the man in charge. The cost of carrying on this egg-laying contest is trifling, as the sale of eggs not only pays for all the feed used, but also practically pays the salary of the man in charge of the contest. The money realized from sale of eggs is refunded to this section of the Department.

Cow-Testing Associations.

This is regarded as one of the most valuable lines of work recently introduced by the Department. The following cow-testing associations have been formed, and are doing very valuable work amongst dairymen:—

Location.	No. of Cows Tested.
Chilliwack..	515
Sardis and Rosedale..	489
Comox..	450
Langley-Surrey..	436
Delta..	400
Total..	2,290

By means of these cow-testing associations, farmers are rapidly being educated as to the advisability of keeping a careful record of performance of their cows, by weighing the milk and using the Babcock test. Since these associations were started, the milk production has very materially increased, owing to the fact that dairymen have discarded unprofitable cows. The principle of breeding from selection, feeding a balanced ration, and the proper housing, care and treatment of cows are all encouraged.

Field Crop Competitions.

These were first organized to induce farmers to adopt more correct methods of crop production. Prize money was offered as the inducement, and was paid to those who had studied such methods and applied them most successfully.

The object of field crop competitions is to induce farmers to attempt better and greater production. They have served and are serving the purpose for which they were intended, and there is an annual increase in the number of competitions held and in the number of institute members taking part, as is shown by the following table:—

Year.	No. of Institutes Competing.	No. of Competitions.	No. of Competitors.
1912..	14	20	305
1913.....	21	31	505
1914..	49	80	587
1915.....	59	101	812

Silo Demonstrations.

By means of the Federal grant, the department has during the past two years been enabled to undertake a strong campaign of instruction in the growing of ensilage crops, and the use of the silo. Blue-prints and specifications of a cheap but effective stave silo are supplied free of cost to all farmers who contemplate building. The department undertakes to erect the first silo in any Farmers' Institute district, and later in the year to fill it, and has been kept busy during the last three years erecting silos for farmers in different districts in which they had not been started. As a result of this work, there are now approximately three hundred silos in the province, when four years ago there were probably not a dozen. In this time the acreage devoted to the growing of corn has increased tenfold. In the opinion of the department the value of this work cannot be overestimated, as the province is particularly well adapted for growing soiling and fodder crops and for the use of the silo. The increase in milk sold and butter made during the last few years is to a large extent due to the use of silos by farmers.

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Clover and Alfalfa.

Very large sums of money are yearly sent out of the province for clover and alfalfa seed when farmers can produce the highest quality of seed at home. In order to encourage farmers to grow their own seeds, the department purchased a clover and alfalfa huller, and this year will be threshing approximately two hundred acres of these crops for different farmers, charging them a fair price for the work. The quality of the seed grown, owing to favourable climatic and soil conditions in British Columbia, is far superior to that imported from other countries.

Seed Fairs.

Annual seed fairs are now being held. Arrangements for the present year provide for these fairs being held at New Westminster, which will take in all the country of the Lower Mainland and Vancouver Island; Armstrong, which will serve the country of the Okanagan, Similkameen, and Boundary; and Kamloops which will take in the Thompson Valley, Shuswap and Arrow Lakes districts. Suitable prizes are awarded at these seed fairs, and the other expenses in connection therewith paid out of this section of the federal grant.

Markets Commissioner.

A Coast Markets Commissioner, with office at Vancouver, has been appointed with the object of assisting British Columbia producers to secure the best markets by furnishing them with information with regard to marketing conditions, prices, correct methods of grading and packing produce. Full weekly reports are sent to all producers, giving information as to prices, demand for produce, etc. Most excellent results have been obtained from this work, and many thousands of dollars, it is stated, have been saved to farmers and fruit growers through the activities of this branch. The salary and expenses of the Commissioner, R. C. Abbott, and the expenses of his office are defrayed by the grant.

HORTICULTURAL WORK.

Salaries and General Disbursements, \$8,501.

Three demonstration and experimental plots in agriculture and horticulture are being conducted, namely, at Terrace (Skeena River), Bella Coola, and Lawn Hill (Graham Island). These plots are five acres in extent, and are devoted to tree fruits, small fruits, vegetables, grain and forage crops. Different varieties are tested out, and experimental work in cultural methods, fertilization, spraying, and pruning, is carried on. These plots have proved of great service to the farmers and fruit growers in the localities in which they are established, and are much appreciated by them.

The Northern Okanagan Small Fruit and Vegetable Experimental Station is under the direction of Mr. J. L. Hilborn, whose property at Summerland was placed at the disposal of the department for the purpose, as described in last year's report. Mr. Hilborn's experience in Ontario proved of great value. Mr. Hilborn devotes all his time to advising growers, with the result that many have taken up this phase of work with success.

By means of the grant, two laboratories have been equipped with the necessary appliances and materials for conducting exhaustive investigation and research work in plant diseases and pests, and as to their control and eradication. An assistant plant pathologist has been appointed, and the interests of fruit growers have been well served by the experimental and research work carried out by means of these laboratories.

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Provincial horticulturists in their respective districts have also carried out a considerable amount of experimental and investigation work, in pruning, spraying, fertilizing, irrigating, and cultural methods. The expenditure incidental to work of this nature has been met by the grant.

BOYS' AND GIRLS' COMPETITIONS.

Sixteen clubs for boys and girls were organized in the spring of 1916, with the object of creating an interest in the farm through the medium of competitions. Any boy or girl, from 10 to 17 years inclusive, is eligible for membership. Twenty competitions were held, ten in potato-growing, eight in poultry-raising, and two in pig-raising. Although only recently inaugurated, a great deal of interest is being taken in the movement. In most instances the children obtain very good results—better than those secured by their elders—owing to the fact that they are eager to follow directions given. When good results follow, the parents themselves are interested. The cost of the undertaking is met from the grant, but the charges do not appear in the accounts for the past financial year.

DOMINION GRANT APPRECIATED.

In commenting upon the work performed, the Deputy Minister of Agriculture, Mr. Wm. E. Scott, states: "By means of the grant we have been enabled to carry on to a much fuller extent than would be possible if we only had our provincial appropriations on which to rely, the most valuable lines of educative and demonstration work. This work is giving a great stimulus to agriculture, and is teaching the farmer how, by the adoption and application of correct principles of farming, he can increase his production from the land, and improve the quality of the stock, and generally, make a greater success of his farming operations."

AGRICULTURAL INSTRUCTION IN SCHOOLS (\$15,000).

During the past year substantial progress has been made in all lines of work included in the programme of agricultural education. The response of the teachers to the call of the Education Department to attend the summer school of 1915 was even more marked than in the previous year. Of the one hundred and seventy-one teachers who took the preliminary course in rural science in 1914, some seventy-seven returned for the advanced course in 1915, and in addition to these there were one hundred and eighty-three entered for the preliminary course. Altogether three hundred and fifty-nine teachers have taken this summer course in rural science. On account of the unusual conditions now existing in Canada, it was decided not to hold a summer school in 1916, but in all probability these courses for teachers will be continued even on a more extended scale in 1917.

The interest that is being aroused amongst school trustees and people generally throughout the province in agricultural education is very gratifying. The rapid increase in school gardens as an aid in the teaching of agriculture goes to show this. In 1914 there were but few school gardens in the province that could be officially recognized—probably less than half a dozen. In 1915 departmental grants were paid to eighty schools as having gardens up to the standard recognized by the department, and for the present year, 1916, the number will be more than doubled. In addition to this, some twenty-five or thirty teachers have undertaken home garden projects with their pupils. Special grants are made to school boards as well as to teachers undertaking to carry on home and school gardens.

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School trustees are also taking a greater interest in the general improvement of school grounds. In most parts of the province good grounds for modern school requirements necessitate a large outlay for clearing and levelling, not to mention fencing, planting and beautifying. The assistance offered by the department to school boards towards the carrying out of an approved plan of grounds improvement has been greatly appreciated. During the past year thirty school grounds have been planned and are being rapidly improved. School boards are giving more attention to the choosing of good school sites with sufficient room for all school purposes, including school gardens and outdoor sports, than heretofore. School grounds have been supplied with shade and ornamental trees, flowering shrubs and herbaceous perennial flowers from the provincial schools' nursery.

The teaching of agriculture has been introduced in one of the high schools of the province—Chilliwack. It has been made an optional subject and for students taking it the study of foreign languages has been made optional on certain conditions and may be carried as a bonus subject. Arrangements have already been made to extend the work, and four other high schools will be offering two-year courses in agriculture when the schools open in September. It is hoped that within a few years all of the high schools of the province that are established in agricultural districts will be offering courses in agriculture.

Instruction in agriculture is to be given in these high schools by specialists only. These men, who must be graduates in agriculture, are being carefully selected. In addition to their work as teachers in the high school, they have supervision of the rural science work of the public schools of the district. They make regular visits to these adjacent rural schools, giving instruction to the pupils in school gardening, as well as in other branches of agriculture, and assisting the teachers generally in carrying out a suitable line of work. During the winter of 1915-16, the District Supervisor at Chilliwack organized an extension class for young men not in attendance at school. Ten young men attended the classes regularly two half-days per week during the months of November, December, January and February. One evening per week was also arranged which partook of the nature of an agricultural club meeting or conference. Lectures by outside men were given, debates and discussions organized, etc. It has been arranged to continue this branch of the district work, although the great majority of the young men have joined the colours, and we do not look for a very large attendance this year. An attempt has been made to suit the work carried on in the extension classes to the particular needs and interests of these young men, and in all classes the work is conducted in the most practical manner possible.

In the regular high school classes, girls as well as boys are included. It is desired that those young people who are looking towards the teaching profession should avail themselves of this instruction in agriculture, as they will be thereby the better able to give instruction in the subject in their own schools later on.

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APPOINTMENTS PROVIDED BY THE DOMINION GRANT.

(A)—Officers, regularly employed, whose salaries are paid wholly from the Agricultural Instruction grant:

Director Elementary Agricultural Education, J. W. Gibson, M.A., Victoria.
District Supervisor Agricultural Education, J. C. Readey, B.S.A., Chilliwack.
District Supervisor Agricultural Instruction, E. L. Small, B.S.A., Cloverdale.
District Supervisor Agricultural Instruction, J. E. Britton, B.S.A., Armstrong.
Assistant Plant Pathologist, M. H. Ruhmann, Vernon.
Silo Operator, J. Ferris, Victoria.
Assistant Horticulturist, E. C. Hunt, Grand Forks.
Caretaker, Egg-laying Contest, W. H. Stroyan, Victoria.
District Agriculturist, Geo. O. Hay, B.S.A., Telkwa.
District Agriculturist, J. H. McCulloch, B.S.A., Quesnel.
Soil and Crop Instructor, E. W. Hogan, B.S.A., Victoria.
Acting Asst. Horticulturist, A. R. Neale, B.S.A., Prince Rupert.
Coast Markets Commissioner, R. C. Abbott, Vancouver.
Editor, Publications Branch, Roy McLennan, Victoria.

(B)—Officers, regularly employed, whose salaries are paid partly from the Agricultural Instruction grant:

Cow Tester, G. H. Thornbery, Courtenay.
Cow Tester, E. Rive, Ladner.
Cow Tester, J. B. Watson, Sardis.
Cow Tester, D. James, Cloverdale.

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BALANCE OF GRANT OF 1914-15.

EXPENDITURE for the year ended March 31, 1916.

Number.	Classification.	Balance on hand April 1, 1915.	Expenditure to March 31, 1916.	Balance Unexpended Mar. 31, 1916.	Balance Overexpended.
		\$ cts.	\$ cts.	\$ cts.	\$ cts.
1	Demonstration and Experimental Plots.	118 89	110 73	8 16	
2	Poultry Demonstration Stations.....	8 97	8 00	97	
3	Children's Crop Competitions.....				
4	Cow-testing Associations.....	2,500 02	2,079 84	420 18	
5	Horticultural Demonstrations....	1,348 10	1,347 91	19	
6	Vegetable Experiments	21 45	12 40	9 05	
7	Insect and Plant Diseases Investiga- tions.....	500 00	160 22	339 78	
8	Fruit Packing	1,000 00	215 00	785 00	
9	Agricultural Instructors				
10	Printing and Preparing Bulletins	5 34	510 10		504 76
11	Weed Suppression	1 68		1 68	
12	*Agricultural Instruction in Schools....				
13	Miscellaneous.	753 56	745 56	8 00	
		6,258 01	5,189 76	1,573 01	504 76

Net balance of \$1,068.25 transferred to Section 5, "Printing and Preparing Bulletins" 1915-16 grant, as authorized by Minister, thus closing the account.

*In the previous statement a balance of \$3,386.40 was incorrectly given, under "Agricultural Instruction in Schools," the expenditure of the total grant of \$15,000, being fully accounted for in the details appearing on Page 105 of the Report of 1914-15.

1. DEMONSTRATION AND EXPERIMENTAL PLOTS.

Balance April 1, 1915.. . . .	\$ 118 89	
Expended to March 31, 1916.....		\$ 110 73
Balance March 31, 1916.. . . .		8 16
	\$ 118 89	\$ 118 89
Salaries—		
R. J. Ferris, silo demonstrator.. . . .	\$ 75 00	
F. Goldie, care demonstration plot.. . . .	40 00	
W. Newton, instructor soil and crops.. . . .	120 00	
" " expenses.. . . .	77 35	
S. F. Dunlop, Agriculturist, expense.. . . .	103 95	
		\$ 3,546 20
Labour and materials, demonstration plots.. . . .	\$ 219 46	
Implements.. . . .	209 99	
		429 45
Seed distribution.. . . .		2,000 25
Silo work.. . . .		32 20
Crop competitions.. . . .		34 75
Alfalfa cultures.. . . .		20 10
		\$ 3,146 15
Less seed grain refunds.....		2,079 84
		\$ 110 31

2. POULTRY DEMONSTRATIONS.

Balance April 1, 1915..	\$ 8 97	
Expended to March 31, 1916..		\$ 8 00
Balance March 31, 1916..		97
	<hr/>	<hr/>
	\$ 8 97	\$ 8 97
Advertising Egg Contest..		<hr/>
		\$ 8 00

4. COW-TESTING WORK.

Balance April 1, 1915..	\$ 2,500 02	
Expended to March 31, 1916..		\$ 2,079 84
Balance March 31, 1916..		420 18
	<hr/>	<hr/>
	\$ 2,500 02	\$ 2,500 02
Salaries, sundry persons, cow-testers..		\$ 1,836 00
Travelling expenses, supplies, etc. /		243 84
		<hr/>
		\$ 2,079 84

5. HORTICULTURAL DEMONSTRATIONS.

Balance April 1, 1915..	\$ 1,348 10	
Expended to March 31, 1916..		\$ 1,347 91
Balance March 31, 1916..		19
	<hr/>	<hr/>
	\$ 1,348 10	\$ 1,348 10
Salaries, Caretakers Demonstration Plots—		
S. LeC. Grant..	\$ 300 00	
T. H. Hughes..	200 00	
E. C. Hunt..	200 00	
A. Richardson..	200 00	
	<hr/>	<hr/>
		\$ 900 00
Labour, materials and supplies..		170 71
Travelling expenses..		277 20
		<hr/>
		\$ 1,347 91

6. VEGETABLE GROWING.

Balance April 1, 1915..	\$ 21 45	
Expended to March 31, 1916..		\$ 12 40
Balance March 31, 1916..		9 05
	<hr/>	<hr/>
	\$ 21 45	\$ 21 45
Seed, fertilizer and labour demonstration plot..		<hr/>
		\$ 12 40

7. INSECT AND PLANT DISEASES—INVESTIGATION WORK.

Balance April 1, 1915..	\$ 500 00	
Expended to March 31, 1916..		\$ 160 22
Balance March 31, 1916..		339 78
	<hr/>	<hr/>
Total..	\$ 500 00	\$ 500 00
Chemicals, supplies, duty..		<hr/>
		\$ 160 22

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S. FRUIT PACKING.

Balance April 1, 1915..	\$ 1,000 00	
Expended to March 31, 1916..	\$ 215 00
Balance March 31, 1916.. . . . .	.....	785 00
Total..	\$ 1,000 00	\$ 1,000 00
Prizes, apple-packing contests, and packed fruit dislays.. . .		\$ 215 10

10. PRINTING AND PREPARING BULLETINS.

Balance April 1, 1915..	\$ 5 34	
Expended to March 31, 1916.. . . . .	.....	\$ 510 10
Balance overexpended March 31, 1916..	504 76	
Total..	\$ 510 00	\$ 510 10
Addressing machine..		\$ 25 00
Wool circular..		7 50
Services mailing..		11 00
Printing Agricultural Journal..		466 60
Total..		\$ 510 10

13. MISCELLANEOUS.

Balance April 1, 1915..	\$ 753 56	
Expended to March 31, 1916.. . . . .	.....	\$ 745 56
Balance March 31, 1916.. . . . .	.....	8 00
Total..	\$ 753 56	\$ 753 56
B. Livingston, travelling expenses, Women's Institute lectures..		\$ 593 81
Seed distribution..		108 50
Weed suppression..		21 00
Incidentals..		22 25
Total..		\$ 745 56

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Grant, 1915-16, \$75,000.00

STATEMENT FOR THE YEAR 1916-17 March 31, 1916

Number.	Classification.	Grant 1915-16	Grant as amended	Balance on hand Apr. 1, 1916.	Expended to Mar. 31, 1916.	Balance Unexpended Mar. 31, 1916
		\$ cts	\$ cts	\$ cts	\$ cts	\$ cts
1	Instructors and Inspectors.	10,000 00	10,000 00		4,000 00	6,000 00
2	Demonstration and Experimental Work.	10,000 00	10,000 00		11,212 77	1,787 23
3	Horticultural demonstrations.	8,500 00	8,500 00		9,000 00	600 00
4	Hops and other Field Crop Competi- tions.	2,000 00	2,000 00		1,102 44	897 56
5	Printing and Preparing Bulletins. . . .	2,000 00	2,000 00	1,000 00	1,000 00	0 00
6	Agricultural Instruction in Schools. . .	15,000 00	15,000 00		15,000 00	0 00
7	Miscellaneous.	7,500 00	7,500 00		7,500 00	0 00
	Total.	55,000 00	55,000 00	1,000 00	42,815 21	12,184 79

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1. INSTRUCTORS AND INSPECTORS.

Grant 1915-16..	\$ 12,000 00	
Expended to March 31, 1916..		\$ 9,975 72
Balance March 31, 1916..		2,024 28
Total..		\$ 12,000 00
Salaries—		
R. C. Abbott, Markets Commissioner..		\$ 1,175 00
W. T. Brookes, Veterinary Inspector..		615 00
L. F. Burrows, Assistant Horticulturist..		70 95
D. F. Dunlop, “		575 00
R. J. Ferris, silo demonstrator..		375 00
F. L. Goldman, Assistant Horticulturist..		83 85
F. Goldie, caretaker demonstration plot..		80 00
E. M. Howitt, Assistant Horticulturist..		600 00
E. C. Hunt, “		500 00
D. H. McKay, Veterinary Inspector..		600 00
W. Newton, Instructor, soil and crop..		480 00
M. H. Ruhmann, Asst. Plant Pathologist..		700 00
R. L. Ramsay, Assistant Agriculturist..		125 00
W. J. Sheppard, Foul Brood Inspector..		125 00
M. Sparrow, Veterinary Inspector..		600 00
W. H. Stroyan, caretaker, egg-laying contest..		375 00
		\$ 7,079 80
Travelling and office expenses of above..		2,895 92
Total..		\$ 9,975 72

A. H. Howitt, B.S.A., acts as Assistant to the Horticulturist at Prince Rupert, and gives instruction to pupils of public and high schools in agriculture and horticulture.

E. C. Hunt, B.Sc., has charge of the Boundary district, besides taking charge of the campaign for fire blight control; he conducted primary schools, gave orchard demonstrations, lectured and judged at fairs. The most important feature of this work is the orchard-to-orchard inspection.

Three veterinary inspectors were employed for about four months in improving conditions on dairy farms.

M. H. Ruhmann is in charge of the Pathological and Entomological Laboratory at Vernon. The laboratory does a great deal of identification work. A considerable portion of his time is devoted to field study for the benefit of the orchard industry, lecturing, etc.

R. L. Ramsay acted at District Agriculturist at Telkwa, being succeeded by D. F. Dunlop.

2. DEMONSTRATION AND EXPERIMENTAL WORK.

Grant, 1915-16..	\$ 18,000 00	
Expended to March 31, 1916..		\$ 14,213 77
Balance March 31, 1916..		3,786 23
Total..		\$ 18,000 00
Poultry Work—		
Breeders' premium for services..	\$ 305 00	
Prizes, Egg contests..	376 75	
Supplies and expenses contests..	596 97	
Poultry for breeding stations..	1,124 22	
		\$ 2,402 94
Silo demonstrations—		
Equipment, supplies and expenses..		\$ 1,624 27
Demonstration Plots—		
Labour and supplies..	\$ 2,962 27	
Rent..	483 00	
Implements..	105 50	
		\$ 3,550 77

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2. DEMONSTRATION AND EXPERIMENTAL WORK—*Concluded.*

Farmers' Institute Crop Competitions—		
Prizes.. . . .	\$ 1,790 00	
Judges' expenses.. . . .	1,123 80	
Boys' and Girls' competitions.. . . .	105 20	
		\$ 3,019 00
Seed Grain and distribution.. . . .		3,028 44
Alfalfa cultures.. . . .		122 50
Dairy division.. . . .		310 05
Apparatus and supplies, soil analysis.. . . .		242 45
Travelling expenses—		
S. F. Dunlop, District Agriculturist.. . . .	\$ 420 85	
C. H. Gravely.. . . .	196 00	
D. H. McKay.. . . .	90 50	
W. Newton, Instructor, soil and crop.. . . .	602 25	
M. Sparrow.. . . .	51 00	
		\$ 1,370 60
Incidentals.. . . .		291 81
		\$ 16,064 43
Total.. . . .		4,457 66
		\$ 11,606 77
Salaries—		
R. J. Ferris, Silo Demonstrator.. . . .	\$ 450 00	
F. Goldie, Caretaker Demonstration Plot.. . . .	240 00	
W. H. Stroyan, Caretaker, Egg-laying contest.. . . .	525 00	
W. Newton, soils and crops	600 00	
Cow-testers.. . . .	240 00	
S. F. Dunlop, Assistant Agriculturist.. . . .	552 00	
		\$ 2,607 00
Total.. . . .		\$ 14,213 77

Cow-testers.—Assistance is given to cow-testing associations by paying a portion of the salaries of cow-testers.

3. HORTICULTURAL DEMONSTRATION PLOTS.

Grant, 1915-16.. . . .	\$ 8,500 00	
Expended to March 31, 1916		\$ 6,565 64
Balance March 31, 1916.. . . .		1,934 36
Total	\$ 8,500 00	\$ 8,500 00
Labour, supplies, incidentals, services of superintendents and travelling expenses of Assistant Horticulturists, Experimental Plots.. . . .		
		\$ 2,590 29
J. L. Hilborn, in charge of Summerland station for small fruits and vegetables.. . . .		956 00
		\$ 3,546 29
Salaries—		
L. P. Burrows, Assistant Horticulturist.. . . .	\$ 500 00	
F. L. Goodman, "	412 33	
S. LeC. Grant, Caretaker, Demonstration Plot.. . . .	300 00	
T. H. Hughes, "	100 00	
C. E. Hunt, Asst. Horticulturist, (See Section 1.)	500 00	
A. Richardson, Plot Caretaker.. . . .	100 00	
M. H. Ruhmann, Plant Pathologist (See Section 1.)	500 00	
		\$ 2,412 33
Total.. . . .		\$ 6,005 64

The entire cost of operating these experimental plots was borne from the fund. On account of these plots, salaries of \$1,800 were paid to the three superintendents and a total of \$1,025.11 was expended in the purchase of seeds, fertilizers, necessary implements, the erection of fences and such sheds as were necessary, and the payment

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7. MISCELLANEOUS—*Concluded.*

Dr. S. Ransom, salary and expenses, cattle investigation... ..	105 25
Seed Grain distribution... ..	\$1 25
Poultry for stations... ..	60 80
Weed suppression... ..	70 50
Prizes Boys' and Girls' competitions... ..	42 50
Supplies, printing, etc... ..	\$6 55
Total... ..	\$ 2,765 52

Payments in connection with women's institute work, grain distribution, poultry breeding stations, noxious weeds, pathological work, etc., have been made from this section. The principal expenditures incurred were with respect to women's institutes, the provincial appropriation for this purpose having been fully expended towards the end of last year, and in order that the work might be carried on till yearly appropriation was again available, permission was secured from the Dominion Minister of Agriculture to utilize part of the grant for this purpose.

AGRICULTURAL AID GRANT, 1912.

STATEMENT FROM JUNE 17, 1915, TO MARCH 31, 1916.

Number.	Classification.	Balance on hand June 17, 1915.	Expended to Mar. 31, 1916.	Balance carried forward
		\$ cts.	\$ cts.	\$ cts.
1	Women's Institutes	5 95	417 48	411 53 (over)
2	Fruit Packing	10 00		10 00
3	Purchase Dairy Cattle			
4	Demonstrations in Crops, live stock and purchased stock purchase	2,044 18	2,040 20	4 98
5	Importation of Pure bred stock	2,792 40	1,280 08	1,512 32
6	Miscellaneous	1 91		1 91
	Total	4,354 45	3,747 76	606 69

BRITISH COLUMBIA.

COMPARATIVE STATEMENT OF EXPENDITURE OF PROVINCIAL FUNDS FOR AGRICULTURAL PURPOSES FOR THE YEARS 1913, 1914 AND 1915.

Service.	1913 to March 31.	1914 to March 31.	1915 to March 31.	1916 to March 31.	1916-17 to March 31. (Estimated).
	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.
Salaries—Agricultural Branch, Dept. of Finance and Agriculture.....	37,851 78	53,755 12	67,288 02	62,919 70	73,496 00
Agricultural Associations.....	88,823 65	67,311 11	41,041 45	16,709 33	50,000 00
Board of Horticulture.....	2,556 65	1,078 25	217 70	318 85	500 00
Stock Breeders' Associations.....	4,633 42	2,717 68	1,278 04		2,500 00
Flockmasters' Association.....	250 00	250 00	250 00	1,757 85	250 00
Dairymen's Association.....	3,062 51	2,999 35	2,096 46	2,564 78	2,500 00
Department of Agriculture— Grants to Students; Compen- sation for Cattle; Services and Expenses, outside; Miscellaneous, Weed Suppression.....	30,160 87	19,340 31			
Panama Exposition		24,985 50	104,021 88	77,336 31	67,000 00
Fruit Work—				7,322 92	
Fruit Cooling and Storage	871 01	2,992 51			
Fruit Exhibitions	43,110 28	36,059 28			
Fruit Packing Schools.	4,567 49	4,043 15			
Inspection Nursery Stock	11,681 58	41,216 74	68,385 25	36,649 76	43,750 00
Fruit Growers' Associations.....	4,211 42	6,251 66			
Demonstration Orchards.....	18,071 23	2,242 13			
Farmers' Institutes and Importa- tion of Pure Bred Stock in 1913...	58,577 05	17,575 75	5,704 60	18,108 45	20,000 00
Women's Institutes.....	4,640 01		4,993 85		7,500 00
Poultry Association Grant	2,934 64	3,870 86	1,879 91	5,213 60	2,500 00
Poultry Shows	3,100 00	4,000 00	4,000 00		
Totals	318,103 59	290,789 60	303,107 26	228,901 55	249,996 00

NOVA SCOTIA.

AGREEMENT, 1915-16.

1. Agricultural Colleges and Agricultural Schools—		
(a) Capital expenditure to pay interest and sinking fund on cost of construction of and furnishing for science building.. . . .	\$ 7,500 00	
(b) Salaries and maintenance.. . . .	20,000 00	
		\$ 27,500 00
2. Instructors, Directors, Superintendents and District Representatives—		
Salaries and expenses.. . . .		7,000 00
3. Instruction and Demonstration—		
Dairying.. . . .	\$ 3,500 00	
Poultry.. . . .	1,600 00	
Bee-keeping.. . . .	400 00	
Soils (including drainage and field crops).. . .	2,300 00	
Horticultural and Entomological investigation	7,500 00	
Fruit growing.. . . .	1,200 00	
Short courses.. . . .	3,000 00	
		19,500 00
4. Women's work (Women's Institutes, Home Makers' Clubs, Domestic Science, etc.).. . . .		3,000 00
5. Bulletins, reports, circulars and miscellaneous printing.. . .		500 00
6. Instruction in Public and High Schools and in Normal Schools in Agriculture, Nature Study, training of teachers and school gardens.. . . .		10,000 00
7. Contingencies and miscellaneous.. . . .		200 87
Total		\$ 68,001 87

New Science Building.

The Science building, at the Nova Scotia Agricultural College, completed in the autumn of 1915, was formally opened on January 11, 1916, by the late Dr. C. C. James, Dominion Commissioner of Agricultural Instruction.

The building is intended to provide accommodation for instruction and investigation in the various departments of science and in home economics, proper facilities for which have hitherto been lacking.

The building is a handsome rustic brick structure of 125 x 50 feet, three stories high, and set high on the central knoll of the college campus. The basement, or what is really the ground floor, contains a general chemical laboratory and a soil-chemistry laboratory, each capable of accommodating fifty students.

On the first floor are three research laboratories in entomological and plant disease work, and a class room capable of seating 160 students. The second floor is devoted wholly to home economics. There is provided a fine assembly hall, equipped with movable furniture, to serve as a meeting place for women's institute conventions, and as a room for instruction in sewing, millinery and other subjects related to women's work. Attached to it is a library and reading room. There is also a spacious modern laboratory, equipped with desks, ranges and other apparatus, for study and demonstration. Adjoining this is a laundry with modern fixtures.

The heating and ventilating systems are of the most modern type. The boiler-room is placed below the basement, thus making it in reality a full three-story building. The entire exterior finish is of quarried oak. The building is in every sense satisfactory, is an ornament to the college premises, and a splendid addition to the college equipment.

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INSTRUCTION AND DEMONSTRATION.

District Representatives, \$6,980.

In one county, Antigonish, one permanent representative, Mr. Hugh MacPherson, has been appointed. In the four Cape Breton counties, Mr. H. S. Cunningham and three assistants are employed for the growing season, and give special attention to crop-growing demonstrations. A motor-car was provided to enable Mr. Cunningham to properly supervise the work. In Richmond county, Rev. Father Robitaille carried out demonstration work among the French-speaking residents.

A clover-huller was purchased and operated at several centres. This is said to be the first ever used in the province, and it has already been the means of stimulating clover-seed production. It will be operated in other counties in future seasons. The total cost of this service is charged to the grant.

Dairying, \$3,519.

The expenditure on this service is supplementary to the provincial grant. It provides half the salary of the Provincial Dairy Superintendent, the salary of his assistant, their expenses and the expenses of those employed from time to time in helping to organize the business. The awards given at the Provincial Butter-making Competition and the expenses of the Provincial Dairy Convention are also charged.

The creamery output of the province shows a continuous increase, amounting since 1910 to nearly 500 per cent.

Poultry, \$1,547.

The demonstration work carried on by the Provincial Superintendent with headquarters at the Agricultural College, was continued as in the year preceeding. The appropriation has been used to meet the cost of establishing demonstration poultry houses in different districts, to supply settings of eggs to school children, and to provide for the expenses of the superintendent and others conducting meetings.

Bee-keeping, \$100.

During the year a partial survey of the province was made with a view to ascertaining the prevalence of foul-brood with a view to obtaining legislation looking to the suppression of the disease. The work was of a preliminary character.

Soils, Drainage and Field Crops, \$2,298.

Drainage and soil survey work was begun two years ago, part of the cost of the undertaking being charged to the grant. These charges included the salary of an assistant chemist, the services and expenses of those engaged in making drainage survey for farmers, the cost of concrete tile-making demonstrations and the cost of seeds, fertilizer and supplies used in co-operative experimental work.

The department agrees to demonstrate concrete tile-making to any group of farmers who propose manufacturing 20,000 or more tile. During 1915, 31,000 tile of all sizes were manufactured in Pictou county.

Entomological Investigation, \$1,500.

This appropriation assists the province to meet the cost of the campaign against the Brown-tail moth and the San Jose scale, carried on under the Provincial Entomologist, Mr. W. H. Brittain. The scale has been almost eradicated and the moth kept well within bounds. Evidence goes to show that the province has been saved great loss because of the prompt and efficient work carried on in this regard.

The grant provides for the expenses of the Provincial Entomologist, the salary and expenses of his assistant, and of the chief inspector and fourteen assistants.

Fruit Growing, \$974.

Demonstrations on orchard practice through the renovation of old orchards were continued as in previous years in those parts of the province where fruit growing is not specialized.

Short Courses: Demonstration, Buildings, \$2,159; Lectures, \$1,295.

Part of the appropriation was used to supplement moneys provided for agricultural buildings at Antigonish and Lawrencetown, suitable for short course and other work. Buildings of this kind have now been provided at Yarmouth, Bridgewater, Musquodoboit, Shubenacadie, Antigonish and Lawrencetown, at a total cost to the grant of \$6,388.

The Lawrencetown building contains a demonstration theatre 40 by 60 feet, for live-stock judging and similar work, capable of seating 300. Also a class room seating over 100, a library and office. The class room is designed to accommodate courses in agriculture and domestic science. Surrounding the building are four acres of land, which will serve as a recreation ground, the whole to form a centre for a community development scheme. The cost including furniture was \$3,200, which was made up as follows:—

County Council grant.. . . .	\$ 500 00
Private subscription.. . . .	1,000 00
Agricultural Instruction Act grant.. . . .	1,500 00
Total.. . . .	<u>\$ 3,000 00</u>

During the year, short courses were held at Yarmouth, Lawrencetown and Antigonish, with an attendance of 1,200 students in addition to the regular January short course at the Agricultural College, Truro, attended by over 300 students.

Women's Work, \$2,862.

Work was continued along lines described in the report 1914-15. The number of institutes was increased from thirty-six to forty-four during the year. The total cost of this service is met by the grant.

For some years, short courses of two weeks' duration in domestic science and allied subjects have been conducted at the Agricultural College.

School Agriculture, \$9,854.

This portion of the grant is expended by the Department of Education. It provides the salary of the Director of Rural Science, and of the Dean of Rural Science Training School, together with the expenses of the Summer School for Teachers, held at Truro, including bonuses and travelling expenses. Annually in the months of July and August this school is conducted jointly by the members of the Normal College and Agricultural College staffs. The course is attended by teachers who are seeking to qualify for nature science teaching in the schools of the province.

During the year, ninety-five teachers conducted school and home garden projects and received grants from this fund. Settings of eggs, garden seeds and exhibition prizes for children's exhibits were among the items charged. While school gardens have made no material advance, the number of home gardens cared for by school children increased from 700 in 1914 to 1,900 in 1915.

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APPOINTMENTS PROVIDED BY THE DOMINION GRANT.

(A)—List of persons, regularly employed, whose salaries are paid wholly from the Agricultural Instruction grant:

County representative, H. McPherson, Antigonish County.

County Representative, H. S. Cunningham, Cape Breton Counties.

County Representative, H. B. Langille, Cape Breton and Richmond Counties.

County Representative, T. C. Munn, Inverness County.

County Representative, A. B. MacDonald, Guysborough County.

Entomological Field Work Superintendent, H. G. Payne, Department of Agriculture, Truro.

Assistant Provincial Entomologist, C. A. Good, Department of Agriculture, Truro.

Soil Analyst, J. G. Archibald, Department of Agriculture, Truro.

Women's Institute Superintendent, Miss Jennie A. Fraser, New Glasgow.

Director Rural Science, L. A. DeWolfe, Truro.

Dean Rural Science Schools, C. L. Moore, Halifax.

C. B. Gooderham, Apiary and Entomological Inspector.

Fruit and Vegetable Growing Instructor, W. N. Byers.

Fruit and Vegetable Growing Instructor, F. B. Kinsman.

(B)—List of persons receiving part salary from Federal grant:—

Dairy Superintendent, W. A. MacKay, Department of Agriculture, Truro.

Stenographer to Dairy Superintendent, Miss M. M. Caldwell, Truro.

Accountant, C. R. B. Bryan, Truro.

Professor of Agriculture, J. M. Trueman, Agricultural College, Truro.

Professor of Horticulture, P. J. Shaw, Agricultural College, Truro.

Professor of Zoology, W. H. Brittain, Agricultural College, Truro.

Professor of Botany, H. W. Smith, Agricultural College, Truro.

Professor of Chemistry, J. M. Scott, Normal College, Truro.

Professor of Physics, J. A. Benoit, Normal College, Truro.

Professor of Manual Training, F. G. Mathews, Normal College, Truro.

Principal E. C. Allen, Truro Academy.

Professor of Chemistry, L. C. Harlow, Agricultural College.

Entomological Inspector, J. P. Spittall, Department of Agriculture, Truro.

Entomological Inspector, W. W. Whitehead.

Entomological Inspector, L. G. Sanderson, Department of Agriculture, Truro.

Entomological Inspector, C. F. U. Whitman, Department of Agriculture, Truro.

Entomological Inspector, D. Robicheau, Department of Agriculture, Truro.

Entomological Inspector, V. A. Chute, Department of Agriculture, Truro.

Entomological Inspector, R. M. Sanford.

NOVA SCOTIA.

GRANT, 1915-16, \$68,001.87—STATEMENT FROM APRIL 1, 1915, TO MARCH 31, 1916.

No.	Classification.	Grant, 1915-16.	Balance on hand, April 1, '15.	Total.	Expended to Mar. 31, '16.	Balance Unexpended Mar. 31, '16.
		\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.
1	Agricultural Colleges and Schools (\$27,500)—					
	(a) Interest and Sinking Fund— Science Building.....	7,500 00	3,009 32	10,509 32	6,836 31	3,673 01
	(L) Salaries and Maintenance....	20,000 00	4,059 28	24,059 28	24,059 28	
2	Instructors, Directors, etc— Salaries and Expenses.	7,000 00	.....	7,000 00	6,979 88	20 12
3	Instruction and Demonstration (\$19,500)—					
	(a) Dairying.....	3,500 00	19 85	3,519 85	3,519 26	59
	(b) Poultry.....	1,600 00	8 47	1,608 47	1,541 97	66 50
	(c) Beekeeping.....	400 00	.....	400 00	373 13	26 87
	(d) Soils.....	2,300 00	4 39	2,304 39	2,297 69	6 70
	(e) Horticultural and Entomolo- gical Investigation.	7,500 00	62 30	7,562 30	7,562 30	
	(f) Fruit Growing.....	1,200 00	.....	1,200 00	974 25	225 75
	(g) Short Courses... ..	3,000 00	509 78	3,509 78	3,453 74	56 04
4	Women's Work.....	3,000 00	1,212 04	4,212 04	2,861 63	1,350 41
5	Bulletins, Printing, etc.....	500 00	.....	500 00	499 72	28
6	Agriculture in Schools.....	10,000 00	826 87	10,826 87	9,854 46	972 41
7	Contingencies	501 87	134 70	636 57	627 85	8 72
	Total.....	68,001 87	9,847 00	77,848 87	71,441 47	6,407 40

DETAILS OF EXPENDITURE FROM APRIL 1, 1915, TO MARCH 31 1916.

1a. INTEREST AND SINKING FUND, SCIENCE BUILDING.

Grant 1915-16..	\$ 7,500 00	
Balance forward April 1, 1915..	3,009 32	
Expended to March 31, 1916.. . . . .	.....	\$ 6,836 31
Balance March 31, 1916.. . . . .	.....	3,673 01
Total..	\$ 10,509 32	\$ 10,509 32
Eastern Trust Co., interest..		\$ 644 70
“ paid on loan..		2,364 62
“ interest January 30, 1916..		3,826 99
Total..		\$ 6,836 31

1b. SALARIES AND MAINTENANCE.

Grant 1915-16..	\$ 20,000 00	
Balance brought forward April 1, 1915..	4,059 28	
Expended to March 31, 1916.. . . . .	.....	\$ 24,059 28
	\$ 24,059 28	\$ 24,059 28

The Agricultural College expenditure is not presented in detail. The grant was expended for additional staff and services.

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2. INSTRUCTORS AND DIRECTORS.

Grant, 1915-16..	\$ 7,000 00	
Expended to March 31, 1916..		\$ 6,979 88
Balance unexpended March 31, 1916..		20 12
Total..	\$ 7,000 00	\$ 7,000 00
District Representatives—	Salaries.	Expenses.
H. S. Cunningham, Cape Breton..	\$ 1,113 37	\$ 762 31
H. McPherson, Antigonish..	1,166 62	62 00
Rev. J. E. Robitaille, Richmond..	100 00	—
Assistant Representatives—		
H. B. Langille..	640 00	939 32
J. M. McKenzie..	166 87	260 05
T. C. Munn..	36 00	77 20
C. M. Dickie..	198 00	193 85
	\$ 3,420 64	\$ 2,294 73
Motor car and supplies..		\$ 2,714 37
Clover huller..		71 11
Freight and operating..		429 00
Incidentals..		74 15
		11 25
Total..		\$ 6,979 88

3a. DAIRYING.

Grant, 1915-16..	\$ 3,500 00	
Balance April 1, 1915..	19 85	
Expended to March 31, 1916..		\$ 3,519 26
Balance March 31, 1916..		0 59
Total..	\$ 3,519 85	\$ 3,519 85
	Salaries.	Expenses.
W. A. McKay, Supt..	\$ 699 97	\$ 996 39
J. W. Baird, Assistant..	476 92	368 52
J. R. Sutherland, Assistant..	193 08	64 98
Total..	\$ 1,369 97	\$ 1,429 89
Sundry persons, services and expenses..		\$ 2,089 36
Awards, dairy competitions..		286 78
Convention expenses..		286 44
Incidentals..		190 98
		7 69
Total..		\$ 3,519 26

3b. POULTRY.

Grant, 1915-16..	\$ 1,600 00	
Balance April 1, 1915..	\$ 47	
Expended to March 31, 1916..		\$ 1,541 97
Balance unexpended March 31, 1916..		66 50
Total..	\$ 1,608 47	\$ 1,608 47
J. P. Landry, Supt., expenses..		\$ 590 24
Material, demonstration houses..		802 12
Poultry Convention..		63 20
Eggs sent to schools..		212 75
Express, crates, etc.,..		73 25
Total..		\$ 1,541 97

3c. BEE-KEEPING.

Grant, 1915-16..	\$	400 00		
Expended to March 31, 1916.. . . . .		.....	\$	373 13
Balance unexpended March 31, 1916.. . . . .		.....		26 87
Total..	\$	400 00	\$	400 00
C. F. W. Whitman, salary, \$100. Expenses, \$78.82..	\$		178 82	
C. B. Gooderham, expenses..			13 76	
M. Pettit, services, \$25. Expenses, \$49.80..			74 80	
W. H. Brittain, services..			100 00	
Supplies..			5 75	
Total..	\$		373 13	

4. SOILS (Drainage and Field Crops).

Grant, 1915-16..	\$ 2,300 00		
Balance April 1, 1915..	4 39		
Expended to March 31, 1916.. . . . .	.....	\$ 2,297 69	
Balance March 31, 1916.. . . . .	.....	6 70	
Total..	\$ 2,304 39	\$ 2,304 39	
V. B. Robinson, Analyst, salary..		\$ 330 00	
A. E. Murphy, drainage, salary \$493.08; expenses, \$167.34.. . .		660 42	
A. C. Tattrie, salary, \$75; expenses \$86.40..		161 40	
T. C. Munn, services and expenses..		26 90	
Clarence Foster, services and expenses..		52 50	
L. C. Harlow, services and expenses..		151 72	
T. Hodgson, services and expenses..		70 75	
W. M. Blair, services..		60 00	
R. Robertson, services..		18 00	
B. H. Landell, expenses..		26 20	
J. R. Dickson, expenses..		22 25	
		\$ 1,580 14	
Seed, fertilizer, supplies and incidentals..		717 55	
Total..		\$ 2,297 69	

3e. HORTICULTURAL AND ENTOMOLOGICAL INVESTIGATION.

Grant, 1915-16..	\$ 7,500 00		
Balance April 1, 1915..	62 30		
Expended to March 31, 1916.. . . . .	.....	\$ 7,562 30	
Total..	\$ 7,562 30	\$ 7,562 30	
	Salary.	Expenses.	
W. H. Brittain, Provincial Entomologist.. . . . .	.....	\$ 216 40	
C. A. Good, Assistant..	\$ 900 00	305 91	
C. B. Gooderham, Assistant..	195 00	.....
H. G. Payne, Chief Inspector..	991 64	612 19	
14 Inspectors, salary (half) and exp.	2,156 27	1,760 34	
	\$ 4,242 91	\$ 2,894 84	\$ 7,137 75
Supplies and incidentals..			424 55
Total..			\$ 7,562 30

3f. FRUIT GROWING.

Grant, 1915-16..	\$ 1,200 00		
Expended to March 31, 1916.. . . . .	.....	\$ 974 25	
Balance March 31, 1916..	225 75	
Total..	\$ 1,200 00	\$ 1,200 00	

AGRICULTURAL INSTRUCTION ACT

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3f. FRUIT GROWING—*Concluded.*

P. J. Shaw, expenses.. . . .	\$ 80 14
C. M. Dickie, salary, \$195; expenses \$155.25	350 25
Supplies and incidentals, including fertilizer and spraying materials.. . . .	543 86
Total.. . . .	\$ 974 25

3g. SHORT COURSES.

Grant, 1915-16.. . . .	\$ 3,000 00	
Balance April 1, 1915.. . . .	509 78	
Expended to March 31, 1916.. . . .		\$ 3 453 74
Balance March 31, 1916.. . . .		56 04
Total.. . . .	\$ 3,509 78	\$ 3,509 78
Demonstration building, Antigonish.. . . .		\$ 508 38
" " Lawrencetown.. . . .		1,400 00
" " Yarmouth.. . . .		25 00
L. R. Fairn, Architect, fees.. . . .		70 00
Furnishings, fittings, etc.. . . .		155 15
Delegate expenses.. . . .		\$ 2,158 53
Paul A. Boving, services \$25; expenses \$38.05.. . . .		594 00
J. M. Trueman, expenses.. . . .		63 05
H. B. Langille, services \$60; expenses \$71.12.. . . .		38 41
H. L. Trueman, services \$50; expenses, \$58.91.. . . .		131 12
J. S. Sinclair, services.. . . .		108 91
Laurencetown electric light.. . . .		100 00
Supplies and incidentals.. . . .		203 40
Total.. . . .		\$ 3,453 74

10. WOMEN'S INSTITUTES.

Grant, 1915-16.. . . .	\$ 3,000 00	
Balance April 1, 1915.. . . .	1,350 41	
Expended to March 31, 1916.. . . .		\$ 2,861 63
Balance March 31, 1916.. . . .		1,350 41
Total.. . . .	\$ 4,212 04	\$ 4,212 04
Miss Jennie A. Fraser, Sept. salary 1915, expenses \$615.39.. . . .		\$ 1,265 39
Miss A. Redmond, salary \$111; expenses, \$128.61.. . . .		488 00
Lecturers, services and expenses.. . . .		488 00
Delegates' expenses, Truro Convention.. . . .		486 50
Supplies and incidentals.. . . .		441 11
Total.. . . .		\$ 2,861 63

5. BULLETINS.

Grant, 1915-16.. . . .	\$ 500 00	
Expended to March 31, 1916.. . . .		\$ 489 74
Balance March 31, 1916.. . . .		10 26
Total.. . . .	\$ 500 00	\$ 500 00
Printing, Drainage, Dairy and Fruit Growers' Bulletins.. . . .		\$ 489 74

By special arrangement the Nova Scotia Fruit Growers' Association received an appropriation of \$204.74 to enable them to publish a more complete report than heretofore. The balance was used to meet the cost of publishing popular bulletins on drainage and dairying.

6. AGRICULTURE IN SCHOOLS.

Grant, 1915-16..	\$ 10,000 00	
Balance April 1, 1915..	826 87	
Expended to March 31, 1916..		\$ 9,854 46
Balance March 31, 1916..		972 41
Total..	\$ 10,826 87	\$ 10,826 87
L. A. DeWolfe, Director of Rural Science, salary \$1,999.98; expenses, \$582.27..		\$ 2,582 25
C. L. Moore, Dean Rural Science Training School, salary \$1,000; expenses, \$6.83..		1,006 83
Eight instructors at Summer School..		800 00
		\$ 4,389 08
Books..		213 58
Eggs for setting..		145 50
Teachers' grants, (95 teachers)..		1,942 50
Exhibition prizes..		169 65
Students, travelling expenses..		499 93
Bonuses to summer students..		1,553 15
Supplies and miscellaneous..		941 07
Total..		\$ 9,854 46

7. CONTINGENCIES.

Grant, 1915-16..	\$ 501 87	
Balance April 1, 1915..	134 70	
Expended to March 31, 1916..		\$ 627 85
Balance March 31, 1916..		8 72
Total..	\$ 636 57	\$ 636 57
W. M. Blair, services..		\$ 160 00
C. R. B. Bryan, Accountant, services..		300 00
Dr. P. C. Gauthier, expenses..		30 00
Hugh McPherson, expenses..		57 85
Postage..		80 00
Total..		\$ 627 85

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NOVA SCOTIA.

COMPARATIVE STATEMENT OF EXPENDITURE OF PROVINCIAL FUNDS FOR AGRICULTURAL PURPOSES FOR THE YEARS 1913, 1914, 1915 AND 1916.

Service.	1913. To Sept. 30.	1914. To Sept. 30.	1915. To Sept. 30.	1916. To Sept. 30.
	\$ cts.	\$ cts.	\$ cts.	\$ cts.
General Agriculture—				
Department Salaries and Expenses	7,672 08	5,449 77	14,415 64	14,747 58
Assistance in Dairying	926 16	1,257 34	1,849 69	1,783 87
Entomological Inspection	3,582 27	2,744 15	2,938 06	3,910 31
Drainage	1,534 01	903 19	460 93	12 39
Exhibitions	12,457 84	18,222 13	10,484 08	9,540 17
Field Crop Competitions	870 18	939 18	936 07	1,022 71
Live Stock Improvement	898 57			
Meetings	621 84	69 77	406 50	81 40
Model Orchards	983 31	832 15	506 47	560 61
Printing and Advertising	134 35	306 81	212 00	400 00
Miscellaneous	397 06	228 20	448 45	616 58
Agricultural College	19,607 25	22,000 00	18,000 00	20,000 00
College Farm	14,317 41	14,000 00	14,700 00	15,000 00
Agricultural Societies	13,282 32	15,787 05	14,710 76	14,491 45
Fruit Growers and County Associations	1,032 75	1,150 00	1,200 00	1,450 00
Stallion Enrolment	84 75	518 91	142 23	2 00
Assistance to Poultry	100 35	565 13	423 20	602 05
Advertising Fruit in Great Britain				784 95
Total	78,502 50	84,973 78	82,164 66	84,300 06
Revenue	9,498 41	6,677 26	10,018 82	8,608 70
	69,004 09	78,296 52	72,145 84	75,691 36

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the Sussex and St. Hilaire Dairy Schools, the outlay amounting to the sum of \$5,086. From this it will be seen that the total charge against the grant on account of buildings, furnishings, equipment, salaries and maintenance up to the present time, in connection with the Agricultural Schools and Dairy Schools, amounts to the sum of \$55,880.68.

It is the intention to present a regular course of instruction at both Agricultural Schools. To this end, plans were well under way, but on account of the enlistment of the Director, Mr. R. Newton, and two of his assistants, B. T. Reed and W. D. Ford, together with the fact that many young men from the farms are joining the colours, it was concluded to leave the organization of the schools until after the war. The buildings are utilized at present for the holding of farmers' short courses, household science courses and summer and winter science courses for teachers. Apart from these courses, the buildings are occupied during the entire year as offices and headquarters for certain members of the staff whose work is conveniently conducted from these centres. At the Sussex School, Mr. R. P. Steeves, the Director of Elementary Agricultural Education and his assistants have their headquarters.

AGRICULTURAL TEACHING IN SCHOOLS.

(\$10,280.)

The third year of rural science work in New Brunswick, under supervision of a director, has now been concluded. Previous to 1913, a nature study course was authorized and special grants were paid for school gardening. The passing of the Agricultural Instruction Act opened the way for an advance movement. A director was appointed and the necessary finances were provided by the grant thus relieving the province of any financial obligation in connection with the work associated with his office.

In the working out of the undertaking, rural science schools for giving special training and instruction to teachers have been established, and a nature study and agriculture course has been prescribed for use in all elementary schools. In addition, equipment for experimental teaching has been installed in many schools, school-garden libraries have been procured and instructive pamphlets and circulars distributed. School gardens or home plots have become general, the school fair idea has been inaugurated with apparent success, and an attempt is being made to make the school an influence towards community improvement.

During the year eighty school gardens were in operation, and 878 supervised home plots were conducted as against 59 the year previous. The number of pupils receiving instruction in nature study and agriculture was 2,711 as compared with 1,355 in 1914. In order to stimulate a competitive spirit, three garden prizes were offered in each county, of \$3, \$6 and \$9 respectively, one-third going to the teacher and two-thirds to the district to be expended on special equipment. Ten counties took part in the competition.

To qualify teachers for giving instruction in nature study and agriculture, two summer courses of four weeks' duration were provided, one at the Fisher Vocational School at Woodstock and the other at the new Agricultural School at Sussex. It was found impossible to accommodate the entire number of applicants, but 65 were admitted at Woodstock and 115 at Sussex.

In January of 1916, an additional course for teachers was presented at the Sussex Agricultural School to deal with certain difficulties met with by teachers in presenting these subjects. This course lasted one week, with 107 teachers in attendance; but many had to be refused for lack of accommodation. Lectures were delivered by specialists from other provinces and from the Dominion Department in

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addition to the provincial officers and instructors. In the opinion of those responsible for the course it not only served to draw public attention to the value of nature study and to the relation of education to the practical affairs of life, but, in addition, it clearly demonstrated that the teachers are anxious to qualify for giving this form of instruction.

School Fairs.

School fairs have been undertaken only on a limited scale as yet, but the success met with promises a considerable extension of the work. Prizes were provided, contingent in a measure on the amount raised locally. These included not only prizes for the products of school gardens and home plots, but for related school room work. What may be called the first school fair in New Brunswick was held in the Cloverdale district in September, 1915. The afternoon was given up to an examination of the grounds and garden and the school building and equipment, followed by a luncheon for those present. In the evening at the public hall near by a programme in which the pupils largely participated was presented, and the prizes were awarded to the successful fair competitors; the whole forming what was in reality a community progress day. It is believed that the inauguration of the school fair will be a logical outcome of the increase in school and home gardens, school clubs and local improvement circles, all helping to create a sentiment among the people that rural school should train pupils for country life and rural development.

Household Science, \$685.

Under the section relating to Agricultural Instruction in Schools the necessary funds are provided to meet the expenses of the courses in Household Science held annually, at Sussex and Woodstock. The dates were, Sussex, February 1st to 11th and February 15th to 25th; Woodstock, February 29th to March 10th, and March 14th to 24th. The average attendance at each of the four courses was twenty-three regular students, this, on account of the war, being smaller than was anticipated.

Besides the subjects taken up last year a new class in Arts and Crafts was introduced and proved very popular. Written examinations in the theory of cooking and home nursing, a test in hand sewing, and judging quality and originality of the work in handicraft were new features. Prizes of from \$5 to \$20 were awarded.

Women's Institutes, \$2,838.

There are at present eighty Women's Institutes in the province, an increase of eighteen since the previous year. The membership now stands at 2,353 as against 2,000 a year ago. Because of the existence of numerous patriotic societies, the organization of new institutes was allowed to remain somewhat in abeyance; nevertheless, Madawaska is the only county in which no organization has been effected.

During the Institute year, closing July 31st, 1916, 861 regular meetings and 171 Red Cross meetings were held, with a total attendance of 12,373. At these meetings 626 papers were read and addresses delivered. The cost of the work is financed entirely by the Dominion grant, including an annual grant of five dollars to each institute.

INSTRUCTION AND DEMONSTRATION.

Short Courses, \$913.

The courses here referred to are the courses in general agriculture, designed for farmers and farmer's sons. The special courses for teachers and the courses in household science, having already been described in connection with the work coming under the supervision of the educational authorities, are not included with the above.

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The following is a statement of the agricultural courses held during the year:

Sussex Agricultural Institute, January 11th to 21st; subjects, poultry and bee-keeping, weed control, dairying, entomology, field husbandry, animal husbandry. Four illustrated evening lectures were given. An exceptionally good course in field crops and live stock was given during the last five days. The course opened with an attendance of 24, but this number was not maintained, and the course was not taken advantage of to the extent expected.

Woodstock Agricultural School.—Two weeks' general course, with special attention to field-crops and live stock, and including a two days' potato growers' convention, was held from March 20 to 31. The attendance at the course ran between twenty and forty.

Bathurst course: A three day course in general agriculture was held at Bathurst from December 14 to 16. The total registered attendance was one hundred and eighteen.

St. Hilaire Dairy School.—Four days' general course, April 11 to 14. This course was particularly successful, the attendance at no time falling below forty, and as many as 250 were present at some of the evening sessions.

In addition to short courses, officers of the Department of Agriculture held some sixty meetings during November and December, giving illustrated addresses on various phases of farming.

Soil and Drainage, \$2,989.

This comprised, as in previous years, the demonstration of a ditching machine in connection with under-drainage and of a limestone pulverizer. Both these undertakings were described in last year's report (page 131). Under-drainage was demonstrated on fifteen farms and 1,850 rods of tile were laid during the year, while the pulverizer was operated in various parts of the province, on the basis of cost to the farmer.

Dairying, \$6,660.

Three dairy superintendents who are members of the Departmental staff are provided by the grant, and also a milk-tester. The superintendents undertake the supervision of all creameries and cheese factories, visit individual farmers, attend meetings of agricultural societies and instruct at short courses.

Animal Husbandry, \$780.

The salary and expenses of a field instructor in live stock are charged to the grant. This officer visits individual farmers giving instruction as to the selection, feeding and breeding of live stock, and supervises the work carried on by the Department. Owing to the enlistment of the instructor, Mr. W. D. Ford, this work was subsequently taken over by the Dairy Division.

Poultry Division, \$1,600.

The salary and expenses of the poultry superintendent are charged. This officer instructs at short courses, organizes poultry competitions among farming people, conducts poultry fattening demonstrations and attends agricultural society gatherings.

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Horticulture, \$5,308.

The grant provides for a horticulturist and two assistants. Their work embraces (1) the supervision of demonstration orchards set out by the Department during the last few years, (2) the operation of four old orchards as illustrations of orchard renovation, and (3) short course work.

In response to demands for instruction in pruning and grafting, men are sent to individual orchard owners to illustrate the work. This phase of the work has increased one hundred per cent in three years.

Bee-keeping and Fertilizers, \$1,965.

An instructor in soil fertility and bee-keeping is provided, and is doing much to stimulate honey production and to improve apiary methods. This officer gives instruction through the agricultural societies in the mixing and proper use of chemical fertilizers.

Entomology, \$1,168.

The provincial entomologist assists in school agriculture and instructs at short courses. Through his efforts the children of the rural schools have been widely taught to identify the Brown-tail and Gypsy moths. A stenographer and other office expenses are charged.

Agricultural Societies, \$1,808.

This sum provides the salary and expenses of the superintendent of agricultural societies who has the supervision of 126 such organizations in the province.

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APPOINTMENTS PROVIDED BY THE DOMINION GRANT.

Officers, regularly employed; whose salaries are paid wholly from the Agricultural Instruction grant:—

Superintendent of Dairying and Live Stock, J. W. Mitchell, Fredericton.

Provincial Horticulturist, A. G. Turney, B.S.A., Fredericton.

Dairy Superintendent, C. W. McDougall, Sussex.

Assistant Dairy Superintendent, N. W. Eveleigh, Sussex.

Poultry Superintendent, Seth Jones, Sussex.

Instructor in Fertilizers and Bee-keeping, H. B. Durost, B.S.A., Woodstock.

Entomologist, Wm. McIntosh, St. John.

Superintendent Agricultural Societies, J. E. DeGrace, Petit Rocher.

Director Elem. Agricultural Education, R. P. Steeves, M.A., Sussex.

Assistant Director Elem. Agricultural Education, Victor B. Robinson, B.S.A., Sussex.

Supervisor Women's Institutes, Hazel E. Winter, Fredericton.

Instructor in Household Science, Ada B. Saunders, Fredericton.

The following, having enlisted for overseas service, are not now under pay, but their positions are being held open for them for one year:—

R. Newton, B.S.A., Director Agricultural Schools and Field Husbandman.

W. D. Ford, B.S.A., Animal Husbandman, killed in action.

D. B. Flewelling, B.S.A., 2nd Assistant Horticulturist.

L. C. D'Aigle, Dairy Superintendent.

B. T. Reed, B.S.A., Assistant Field Husbandman.

NEW BRUNSWICK.

GRANT, 1915-16, \$54,308.40—SUMMARY STATEMENT, APRIL 1, 1915, TO MARCH 31, 1916.

Classification.	Grant 1915-16.	Balance April 1, 1915.	Net Total.	Expended to March 31, 1916.	Balance March 31, 1916.	
					Un- expended.	Over- expended.
	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.
1. Agricultural Schools —						
Capital	10,000 00			19,373 02		
Salaries and Maintenance	6,500 00	6,714 76	9,785 24	5,647 01		15,234 79
2. Instructors, Directors and Superintendents.	18,000 00	1,571 70	19,571 70	18,224 04	1,347 66	
3. Instruction and Demonstration	5,000 00	640 92	4,359 08	4,988 77		629 69
4. Women's Work	3,000 00	431 88	3,431 88	2,838 02	593 86	
5. Bulletins and Reports	500 00	109 58	390 42	231 10	159 32	
6. Agriculture in Schools	10,000 00	2,091 67	12,091 67	10,937 41	1,154 26	
7. Contingencies and Miscellaneous	1,308 40	1,228 92	2,537 32	1,318 64	1,218 68	
					*11,390 70	
Totals	54,308 40		52,167 31	63,558 01	15,864 48	15,864 48

* Dr. balance.

1. DETAILS OF EXPENDITURE, APRIL 1, 1915, TO MARCH 31, 1916.

AGRICULTURAL SCHOOLS.

Grant, 1915-16—			
Capital	\$ 10,000 00		
Salaries and maintenance	6,500 00		
Balance, April 1, 1915—			
(a) Agricultural schools	\$ 6,378 65		
(b) Dairy schools	417 51		
(c) Teachers, Agricultural schools	81 40		
Expended to March 31, 1916—			
Capital	19,373 02		
Salaries and maintenance	5,647 01		
Balance overexpended March 31, 1916	15,234 79		
Total	\$ 31,816 19	\$ 31,816 19	

Capital Account.

Sussex School—			
W. F. Lutz, balance of contract	\$ 11,032 00		
“ extras	3,105 32		
Globe Furniture Co., furniture	550 00		
Electrical equipment	1,576 67		
Knox Electrical Co., heating contract	125 00		
Furnishings	256 27		
G. E. Fairweather, Architect	1,103 20		
		\$ 17,748 46	
Woodstock School—			
Furniture	\$ 131 02		
Grounds improvement	121 40		
Miscellaneous equipment	303 49		
		555 91	
Microscopes and Laboratory equipment, Woodstock and Sussex		1,068 65	
Total		\$ 19,373 02	

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Salaries and Maintenance.

R. Newton, Director Agricultural schools, etc., salary, \$1,266.67, expenses, \$192.47..	\$ 1,459 14
B. T. Reed, Assistant Field Husbandry, salary, \$1,150, expenses, \$472.45..	1,622 45
F. D. Plummer, Janitor..	500 00
Thos. Ellison, "	406 98
Maintenance and supplies..	1,676 39
	\$ 5,654 96
Less refund..	7 95
Total..	\$ 5,647 01

2. INSTRUCTORS, DIRECTORS AND SUPERINTENDENTS.

Grant, 1915-16..	\$ 18,000 00	
Balance "Travelling Instructors" April 1, 1915...	1,571 70	
Expended to March 31, 1916.. . . . .	.....	\$ 18,224 04
Balance unexpended March 31, 1916.. . . . .	.....	1,347 66
Total..	\$ 19,571 70	\$ 19,571 70

	Salary.	Expenses.	
W. D. Ford, Animal Husbandman.. . .	\$ 583 34	\$ 196 35	\$ 779 69
N. W. Eveleigh, Asst. Dairy Supt.. . .	1,400 02	616 77	2,016 79
C. W. McDougall, Dairy Supt..	1,500 00	562 72	2,062 72
L. C. D'Aigle, "	1,375 00	900 96	2,275 96
Seth Jones, Poultry Supt..	1,200 00	454 94	1,654 94
A. G. Turney, Horticulturist..	1,650 00	270 62	1,920 62
R. P. Gorham, Asst. Horticulturist.. . .	1,200 00	374 60	1,574 60
D. B. Flewelling, Asst. Horticulturist..	825 00	239 63	1,064 63
H. B. Durost, Bee and Fertilizer In- structor..	1,141 68	822 85	1,964 53
Wm. McIntosh, Prov. Entomologist...	600 00	85 64	685 64
J. E. DeGrace, Supt. Agricultural Societies..	1,070 82	737 32	1,808 14
Wm. Kerr, Services Milk Tester.. . .	180 00	124 30	304 30
Chas. E. Sheridan, Inspector, potato diseases..	200 00	181 70	381 70
Ethel McKee, Stenographer..	247 00		247 00
Supplies and incidentals, chiefly Entomological ..			148 81
			\$ 18,224 83
Less transfers and returns ..			147 95
Total ..			\$ 18,076 88

All the above, in addition to carrying on the special work in which they are engaged, act as instructors at short courses and as travelling lecturers.

B. EXTENSION AND DEMONSTRATION

Grant, 1915-16..	\$ 5,000 00	
Balances, April 1, 1915..		
Short courses..	548 90	
Instructors.. . . . .	.....	\$ 1,028 61
Demonstration trains..	1 11	
Drainage.. . . . .	.....	100 24
Bookkeeping ..	228 94	
Expended to March 31, 1916.. . . . .	.....	4,300 71
Balances, unexpended, March 31, 1916..	428 14	
Total..	\$ 6,509 17	\$ 6,509 17
(a) Bookkeeping ..		
Morley Pettit, services and expenses..	\$ 94 20	
Supplies and incidentals..	243 91	
		\$ 338 11

3. INSTRUCTION AND DEMONSTRATION—*Concluded.*

(b) Soil and drainage—		
Services and expenses, engineers, foremen, surveyor (pulverizer and ditcher)	\$ 2,734 93	
Supplies, repairs, incidentals	1,808 51	
	<hr/>	
	\$ 4,543 44	
Less refunds	1,554 24	
	<hr/>	\$ 2,989 20
(c) Horticulture—		
Sundry persons, services and expenses pruning and grafting		748 35
(d) Short Course Work—		
Advertising, printing, supplies and miscellaneous expenses.		913 11
	<hr/>	
Total		\$ 4,988 77

4. WOMEN'S WORK.

Grant, 1915-16	\$ 3,000 00	
Balances, April 1, 1915—		
Women's Institutes	276 28	
Domestic Science	155 60	
Expended to March 31, 1916		\$ 2,838 02
Balance, unexpended, March 31, 1916		593 86
	<hr/>	
Total	\$ 3,431 88	\$ 3,431 88
Miss Hazel E. Winter, Supervisor, salary \$670.84; expenses, \$99.58		
		\$ 770 42
Miss Imogene Jonah, salary \$300; expenses \$181.69		481 69
Lecturers and organizers, services and expenses		651 66
Expenses Convention delegates		176 28
Prizes		40 00
Grants of \$5 to 76 institutes		380 00
Equipment, supplies and incidentals		512 32
		<hr/>
		\$ 3,012 37
Refunds		174 35
		<hr/>
Total		\$ 2,838 02

5. BULLETINS AND REPORTS.

Grant, 1915-16	\$ 500 00	
Balance, April 1, 1915		\$ 109 58
Expended to March 31, 1916		231 10
Balance, unexpended, March 31, 1916		159 32
	<hr/>	
Total	\$ 500 00	\$ 500 00
Spraying and fertilizer leaflets		
		\$ 42 00
Poultry Bulletin		96 00
Insect Bulletin		28 50
Nature study leaflets		24 60
Envelopes		40 00
		<hr/>
Total		\$ 231 10

6. AGRICULTURE IN SCHOOLS.

Grant, 1915-16	\$ 10,000 00	
Balances, April 1, 1915—		
"Elementary Agricultural Education"	712 49	
"Training Teachers"		\$ 216 40
"Domestic Science Teachers"	177 80	
"School Gardens"	1,417 78	
Expended to March 31, 1916		10,937 41
Balance, unexpended, March 31, 1916		1,154 26
	<hr/>	
Total	\$ 12,308 07	\$ 12,308 07

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AGRICULTURE IN SCHOOLS—*Concluded.*

R. P. Steeves, Director Elementary Agricultural Education, salary \$1,800, expenses \$580.11.. . . .	\$ 2,380 11
Services of Instructors in Special Courses—	
Domestic Science, Animal Life, Soil Physics, School Garden- ing—Woodstock and Sussex.. . . .	1,500 65
Refunded railway fares.. . . .	599 80
Bonuses for attending Science Schools, 57 at \$20.. . . .	1,140 00
Grants to secretaries, teachers, trustees re Nature Study.. . .	2,497 82
Prizes for school gardens.. . . .	147 00
Grants to inspectors, Rural Science School.. . . .	140 00
Seeds, eggs, supplies, stationery, advertising, furnishing and miscellaneous.. . . .	847 32
	<hr/>
	\$ 10,279 71
Services and expenses, Domestic Science courses—sundry per- sons.. . . .	551 35
Prizes, Domestic Science course.. . . .	60 00
Supplies, Domestic Science course.. . . .	73 41
	<hr/>
	\$ 10,964 47
Refund.. . . .	27 06
	<hr/>
Total.. . . .	\$ 10,937 41

7. CONTINGENCIES AND MISCELLANEOUS.

Grant, 1915-16.. . . .	\$ 1,308 40	
Balances, April 1, 1915—		
“Transportation”.. . . .	272 18	
“Contingencies”.. . . .	776 40	
“Agricultural Aid Act”.. . . .	180 34	
Expended to March 31, 1916.. . . .		\$ 1,318 64
Balance, unexpended, March 31, 1916.. . . .		611 76
	<hr/>	
Total.. . . .	\$ 2,537 32	\$ 2,537 32
Office assistance, Woodstock and Sussex.. . . .		\$ 611 76
Railway fare, agricultural students.. . . .		444 55
Postage, stationery and incidentals.. . . .		262 33
		<hr/>
Total.. . . .		\$ 1,318 64

Office assistance, postage, stationery, etc.: Stenographic assistance and office disbursements of Director of Elementary Agricultural Education, Dairy and Poultry Superintendent, who have offices either at the Woodstock or Sussex school.

Railway fares of students attending Provincial short courses and also the regular course at any agricultural college in the Dominion.

NEW BRUNSWICK.

COMPARATIVE STATEMENT OF EXPENDITURE OF PROVINCIAL FUNDS FOR AGRICULTURAL PURPOSES FOR THE YEARS 1913, 1914 AND 1915, AND APPROPRIATIONS FOR 1916.

Service.	1913 to October 31.	1914 to October 31	1915 to October 31	1916 to October 31 Appropriations.
	\$ cts.	\$ cts.	\$ cts.	\$ cts.
Salaries and Expenses Department.. . . .	6,499 68	7,019 06	7,945 44	10,358 00
Agricultural Societies.....	16,867 66	17,444 83	17,000 00	17,000 00
Dairying.....	4,092 28	3,039 53)	6,477 85	6,300 00
Live Stock Industries.....	950 45	3,611 78)		
Dairy School.....	537 03	4,067 99	738 05	1,000 00
Farmers' Institute.....	1,048 96			
Horticulture.....	4,155 67	1,999 37	1,997 26	1,500 00
Cold Storage.....	750 00			
Assistance to Scholars.....				
Poultry Raising.....	1,984 94	980 08	1,245 57	1,500 00
Crop Competitions, Seed Fairs.....	1,869 44	2,082 77	3,398 16	3,000 00
Exhibitions.....			9,824 87	10,000 00
Miscellaneous.....	309 59	355 00	1,944 11	2,500 00
Brown Tail Moth, etc.....	999 51	4,481 93	3,754 45	3,650 00
Bonus Mud Dredges.....		1,000 00	519 90	500 00
Bonus Clover Hullers.....			600 00	
Advertising Natural Products.....				
Limestone crusher and power.....			1,895 00	500 00
Farm Settlement Board.....			862 48	1,500 00
Bonus to Wheat Mills.....				2,500 00
Total.....	40,005 21	46,082 34	58,203 14	61,808 00

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PRINCE EDWARD ISLAND.

AGREEMENT, 1915-16.

1. Capital Account—Equipment of offices of instructors, domestic science kitchens and laboratories.. . . .	\$ 4,000 00
2. Director of Agricultural Instruction and Instructors.. . . .	6,475 00
3. Instruction and demonstration (including Short Courses in Live Stock, Poultry, Bee-keeping, Horticulture and Fruit Growing.. . . .	2,400 00
4. Women's work.. . . .	2,890 00
5. Instruction in Public and High Schools.. . . .	11,791 14
6. Office assistance.. . . .	1,500 00
7. Miscellaneous and contingencies.. . . .	\$2 14
Total.. . . .	\$ 29,138 28

Previous to the passing of the Agricultural Instruction Act, very little work of an educational character in relation to agriculture had been attempted in Prince Edward Island, apart from that undertaken by the Dominion Department of Agriculture. The work of this nature now being carried on is financed entirely from the funds provided by the Act.

In the spring of 1915, W. R. Reek, B.S.A., formerly Associate Professor of Animal Husbandry at the Ontario Agricultural College, was appointed Director of Agricultural Instruction for the province, and given general supervision of the work. The conclusion was then reached to discontinue the four months' course in agriculture at Charlottetown. Hitherto, Professor W. J. Reid, B.S.A., and Professor J. Leslie Tennant had devoted one-third of their time to instruction work in connection with this course, and the balance to the duties of district representatives, which included the holding of short courses, demonstrations, etc. Messrs. Reid and Tennant will now be enabled to devote their whole time to district representative work. They represent Prince county and King's county respectively, and their office and headquarters will be at Summerside and at the Agricultural Hall, Charlottetown.

Capital Expenditure, \$11,000.

The agricultural halls at Charlottetown and Summerside had been purchased and partly reconstructed in previous years with Dominion funds. They provide the accommodation necessary for courses in agriculture and domestic science and for farmers' meetings and conventions. In 1915 it was found necessary to provide office accommodation in the Charlottetown building for the district representatives, and also for the Women's Institute Branch, including an adequate kitchen for short course work. In the Summerside building enlarged office accommodation was arranged for, and facilities were provided for seed judging work. This and repair work made necessary the expenditure of upwards of three thousand dollars in labour and materials, while for office equipment, including furniture, typewriters, etc., the sum of \$742 was spent. Altogether the total cost of these buildings to date has been \$15,534. Before these improvements were fully completed, however, both halls were handed over to the military authorities and are occupied by them at the present time.

Instruction and Demonstration (Public and General Demonstrations \$11,271).

During 1915, short courses were held in January, February and March at such points as were considered suitable. All those engaged in agricultural work upon the Island took part, including Dominion and Provincial officials, school inspectors and others. The number of sessions held was 10, the average attendance 25, and the total attendance 7,712. Live stock, field husbandry, dairying, drainage and plant diseases

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were the principal subjects dealt with. Part of the expense of the courses was met locally. One of these courses was held at Macdonald Consolidated School at Hillsboro, which had been closed for a number of years. It is interesting to note that this course proved to be the means of re-opening it for community work. The total attendance at this point was 1,064. During the course, a country club was formed, fifty-two new members were added to the Farmers' Institute, and the nucleus of a Women's Institute was organized, while closer co-operation between cheese and butter factories was promoted.

DRAINAGE: In certain districts of the Island the need of drainage is very insistent. Approximately 200,000 acres require drainage in order to be worked successfully in an ordinary season. These lands are naturally very fertile and will repay the installation of systems of tile drainage. At the present time very few surface ditches are in existence, and practically no tile drainage is being done, principally because of the fact that tile had to be imported, and the price was consequently too high. During the year much attention was given by the Director and his assistants to this question. Investigation showed that the manufacture of cement tile was not feasible owing to difficulty in securing sand of the proper quality. Finally clay and sand suitable for the manufacture of tile were located near Richmond. This resulted in the formation of a company for the manufacture of tile, brick and other products.

To prove the value of underdrainage a demonstration was undertaken near Wellington, and four acres surveyed, ditched and tiled. As a result of the movement, a Drainage Act was passed by the Legislature, the first of its kind on the Island, in which provision is made for loans to assist in underdrainage.

DAIRY WORK: In January 1916, a conference was held to discuss dairy conditions. The maker and a representative from every factory were invited to attend, and their expenses were paid.

Resolutions were passed and forwarded to the Dairymen's Association of the province recommending (1) the appointment of a provincial inspector and instructor to work among factories, whose salary and expenses should be provided by the grant; (2) the enactment of legislation relating to inspection work and factory operation, and (3) that the Maritime Provinces co-operate in establishing a course for cheese and butter-makers at Truro, N.S. These resolutions received the endorsement of the Association.

CO-OPERATIVE MARKETING: With the assistance of the Dominion Department of Agriculture, the first co-operative wool sale was organized in 1915 and successfully carried out, with Summerside as the centre of operations. About 5,500 pounds of wool were gathered, graded by an expert and sold. Owing to the season being late before the work commenced it was found impossible to cover all the districts where sheep were kept. This work was carried on by the District Representatives who called upon or corresponded with farmers engaged in sheep raising, assisted in keeping records, grading, packing, shipping, etc. The co-operative selling of lambs was also encouraged.

Subsequently organizations were formed, chiefly in the western part of the Island, to take charge of gathering and shipping of wool to the grading station, to promote the purchase and joint ownership of pure-bred rams and better methods of management. This work has already proved of considerable benefit to the sheep industry.

School Agriculture, \$13,668.

During the summer of 1915, the services of Professor S. B. McCready of Guelph, were secured to organize a Rural Science Department at Prince of Wales College for training of teachers in Elementary Agriculture. Professor McCready states in his report that, owing to the liberal allowance made from the funds available through the Agricultural Instruction Act, it has been possible to provide first-class equipment, including special laboratory furniture and fittings. Science books valued at

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about \$200 were purchased, and the leading agricultural publications subscribed for. The expenditure, which amounts to \$1,990, also includes apparatus and material for teaching, such as lantern and screen, slides, charts, balances and scales, soil and weather apparatus, incubator and poultry and bee-keeping accessories. Besides the indoor arrangements plans were made for model school gardens, embodying such features as might be used at rural and town schools.

The issue of a school circular or bulletin was begun in February and will be continued from time to time. This will set forth the general plans for introducing Rural Science, and will assist in enlightening, not only the active teaching body, but also the general body of school supporters as to the methods and possibilities of the work. Besides the circulars a commencement has been made in holding meetings in the country and giving illustrated talks on the subject of school improvement.

The practice of holding a summer school for teachers at Charlottetown was continued in July, and lasted two weeks. Three hundred and sixty attended. A normal course for inspectors was also presented. The railway fares and other expenses are met from the grant.

The teaching staff for this course consists of members of the faculty of Prince of Wales College, of the staff of the Department of Agriculture, and several specialists from other provinces and the United States, and the subjects taught comprise Nature Study, Botany and School Gardening.

As in previous years bonuses were offered to teachers who took up school and home gardening. One hundred and sixty-seven school gardens and 2,506 home projects were conducted, and bonuses amounting to \$2,737 were distributed among 289 teachers. It is anticipated that the work of the Rural Science Department at the college will gradually place school agriculture on a substantial basis.

Favourable results have been received from every quarter where rural science teaching has been introduced. Home project work was carried on to a much greater degree than was anticipated, and interest is reported to be increasing, not only among the children but also among the parents. It is anticipated that the work of the Rural Science Department will result in teachers securing the equipment necessary to teach intelligently and systematically and the hope is expressed that the movement will strengthen the bond between home and school, result in better schools, and tend to make country life more pleasant and farming more profitable.

Women's Work (1919-20)

This work is provided over by Miss Hazel L. Atkinson, as supervisor, and two assistants, and has been of rapid growth. At the present time there are from 35 to 40 active institutes with a total membership of about 700. The activities of this organization reach the school, church, and the various patriotic movements, as well as the home. The institutes have continued to be very active in the Patriotic and Red Cross movements and have contributed liberally both in money and goods.

The movement for improvement in the school house and its surroundings has resulted in the schools being renovated in many districts. On the installation of water tanks, sanitary drinking cups, new seats and desks, school libraries and general repairs the sum of about \$700 was expended, this having been raised specially for the purpose. The institutes have also been instrumental in securing the lighting of public halls, the starting of a public library, while encouragement has been given by the supervisors to the making of exhibits at fall fairs and seed fairs.

As in the two previous years, courses in household science were held during January, February and March, at Prince of Wales College. Each of these was of two weeks' duration, and they were open to women and girls of the rural sections. The attendance was 155. The courses were in charge of the supervisor, and the lectures were given by the institute staff and members of the Departmental staff. Those attending received railway fare and a grant of \$4 each.

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APPOINTMENTS PROVIDED BY THE DOMINION GRANT.

Director of Agricultural Instruction, W. R. Reek, B.S.A.

District Representative, Prince County, W. J. Reid, B.S.A.

“ “ “ “ Queens County, W. R. Shaw, B.S.A.

“ “ “ “ Kings County, M. H. Coughlan, B.S.A.

Soil and Seed Specialist, Leslie Tennant, B.S.A.

Director of Rural Science Department, Prince of Wales College, J. E. McLarty,
B.S.A.

Supervision of Women's Institutes, Miss Hazel Stearns.

Assistant Supervisor of Women's Institutes, Miss Alberta McFarlane.

“ “ “ “ Miss A. Gordon.

Director of Agricultural Instruction in Public Schools, Wm. Cain.

“ “ “ “ “ Walter Curtis.

“ “ “ “ “ D. S. Fraser.

“ “ “ “ “ L. A. Adams.

Accountant, Miss A. W. Newbery.

Stenographer, Miss F. Murdock.

“ Miss Bessie Aylward.

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PRINCE EDWARD ISLAND.

GRANT OF 1915-1916—SUMMARY STATEMENT APRIL 1, 1915, TO MARCH 31, 1916.

No.	Classification.	Grant 1915-16.	Grant as amended.	Balance Forward Apr. 1, '15.	Total.	Expended Apr. 1, '15 to Mar. 31, '16	Balance on hand Mar. 31, '16
		\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.
1	Capital Account—						
	Instructors' Offices Domestic						
	Science equipment.....	4,000 00	4,000 00	...	4,000 00	4,000 00	
2	Instructors, Directors, Superinten-						
	dents and District Representa-	6,475 00	6,475 00	2,334 32	8,809 32	8,809 32	
	tives.....						
3	Instruction and Demonstration—						
	(1) Live Stock..... 2,500						
	(2) Poultry..... 300						
	(3) Beekeeping..... 100	3,400 00	2,400 00	1,270 06	3,670 06	3,411 99	258 07
	(4) Horticulture..... 500						
4	Women's Work.....	3,190 00	2,890 00	1,122 26	4,012 26	3,922 79	89 47
5	Agricultural Instruction in High						
	and Public Schools.....	10,050 00	11,791 14	1,877 22	13,668 36	13,665 35	3 01
6	Office Assistance.....	1,500 00	1,500 00	69 30	1,500 00	1,551 67	17 63
7	Miscellaneous and Contingencies..	523 28	82 14	...	82 14	82 14	
	Total.....	29,138 28	29,138 28	6,673 16	35,811 44	35,440 29	368 18

1. CAPITAL ACCOUNT.

Grant, 1915-16.....	\$ 4,000 00	
Expended to March 31, 1916.....		\$ 4,000 00
Instructors' Office Equipment—		
2 typewriters.....		\$ 270 00
Books.....		111 18
Furniture.....		343 43
Office supplies.....		11 18
Labour and material.....		4,265 89
Total.....		\$ 4,000 00

2. INSTRUCTORS, DIRECTORS, SUPERINTENDENTS AND DISTRICT REPRESENTATIVES.

Grant, 1915-16.....	\$ 6,475 00	
Balance April 1, 1915, District Representatives.....	2,334 32	
Expended to March 31, 1916.....		\$ 8,809 32
Total.....	\$ 8,809 32	\$ 8,809 32
Salaries and Expenses—		
W. H. Reek, Director Agricultural Instruction.....		\$ 2,964 00
W. J. Pratt, District Representative, Prince Co.....		2,043 39
J. L. Tennant, District Representative, Kings Co.....		1,064 74
W. H. Coughlin, Assistant Representative.....		472 51
Walter Shaw, ".....		303 97
Richard Cook, ".....		447 24
T. Ross, expenses.....		220 00
General expense.....		385 90
Total.....		\$ 8,809 32

3. INSTRUCTION AND DEMONSTRATION.

Grant, 1915-16..	\$ 2,400 00	
Balances April 1, 1915—		
"Short Courses"..	527 23	
"Judging Classes"..	503 17	
"Demonstration"..	239 66	
Expended to March 31, 1916.. . . . .	.....	\$ 3,411 99
Balance on hand March 31, 1916.. . . . .	.....	258 07
Total..	\$ 3,670 06	\$ 3,670 06
Supplies, labour, materials, incidentals, including Long and Short		
Course charges..		\$ 2,123 68
Typewriter..		130 00
Services and Expenses—		
David Shurman, Horticultural work..	\$ 275 00	
W. Davison, Instructor in Field Husbandry..	457 77	
Jas. Landrigan, Instructor in English..	150 00	
J. H. Blanchard, School Inspector..	100 00	
Sundry persons..	159 96	
		1,142 73
Fares Dairy Convention..		68 85
		\$ 3,465 26
Less refunds..		53 27
Total..		\$ 3,411 99

4. WOMEN'S WORK.

Grant, 1915-16..	\$ 2,890 00	
Balance April 1, 1915—		
"Women's Institutes"..	1,122 26	
Expended to March 31, 1916.. . . . .	.....	\$ 3,922 79
Balance on hand March 31, 1916.. . . . .	.....	89 47
Total..	\$ 4,012 26	\$ 4,012 26
Salaries and Expenses—		
Mrs. Dunbrack, Supervisor..	\$ 430 05	
Miss Hazel L. Stearns, Supervisor	759 41	
" A. McFarlane, Assistant..	701 39	
" Helena McDonald, Assistant..	138 70	
" Adele Gordon, Assistant..	150 00	
Sundry persons travelling..	246 80	
		\$ 2,426 35
Supplies, printing, incidentals..		602 09
Scholarships and railway tickets, Short Course..		719 35
Women's Institute grants..		175 00
Total..		\$ 3,922 79

Mrs. Dunbrack resigned in September, 1915, and Miss Helena MacDonald at the end of June, and the vacancies were filled by Miss Stearns and Miss McFarlane.

5. AGRICULTURAL INSTRUCTION IN PUBLIC AND HIGH SCHOOLS.

Grant, 1915-16..	\$ 11,791 14	
Balances April 1, 1915—		
(1) Prince of Wales College..	1,012 31	
(2) Nature Study..	868 91	
Expended to March 31, 1916..	\$ 13,665 35
Balance on hand March 31, 1916..	3 01
Total..	\$ 13,668 36	\$ 13,668 36

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5. AGRICULTURAL INSTRUCTION IN PUBLIC AND HIGH SCHOOLS—*Concluded.*

Salaries and Expenses—	
Leslie Adams, School Inspector.	\$ 1,005 00
D. S. Fraser, "	1,018 20
W. E. Curtis, "	1,005 35
Wm. Cain, "	999 90
S. B. McCready, Head Rural Science Department, Prince of Wales College.	1,512 82
J. H. Blanchard, services	100 00
H. Dobie, "	216 69
G. McCarthy, "	174 66
Chas. Buxton, (enlisted) travelling expenses.	105 90
Services and expenses of Inspectors taking over C. Buxton's work.	453 15
Railway tickets.	170 84
	<hr/>
	\$ 6,762 51
Supplies, labour, books, incidentals.	637 53
Weather instruments.	28 00
Furniture.	554 05
Summer School for Teachers—	
Services of instructors, bonuses for attendance, railway fares,* and incidentals.	3,323 38
Bonuses, Teachers, October to December.	2,361 00
	<hr/>
	\$ 13,666 47
Less refund.	1 12
	<hr/>
Total.	\$ 13,665 35

* Six dollars off railway fare allowed each teacher taking the course.

6. OFFICE ASSISTANCE.

Grant, 1915-16..	\$ 1,500 00	
Balance April 1, 1915..	69 30	
Expended to March 31, 1916.. . . . .	.....	\$ 1,551 67
Balance on hand March 31, 1916.. . . . .	.....	17 63
Total..	\$ 1,569 30	\$ 1,569 30
<hr/>		
Salaries—		
A. W. Newbery..		\$ 486 67
N. J. McLeod..		500 00
E. Pineau..		280 00
Miss B. Alward..		150 00
Miss Edith Prouse..		60 00
J. Ross..		75 00
Total..		\$ 1,551 67

7. MISCELLANEOUS AND CONTINGENCIES.

Grant, 1915-16	\$ 82 14	
Expended to March 31, 1916.		\$ 82 14

PRINCE EDWARD ISLAND.

COMPARATIVE SUMMARY OF EXPENDITURE OF PROVINCIAL FUNDS FOR AGRICULTURE.

	1915 to Dec. 31.	1914 to Dec. 31.	1913 to Dec. 31.	1912 Appropriation.
	\$ cts	\$ cts	\$ cts	\$ cts
Farmers' Institutes	1,304 50	1,300 00	1,325 00	1,700 00
Field Competitions and Seed Fairs (incl.)	92 00	1,194 15	800 27	
Field Crops, Horticulture, Dairying and Poultry				8,000 00
Exhibitions, grants.	8,307 00	8,579 91	10,558 30	
Amateurism, sports.	1,201 00	1,267 00		
Exhibitions and Live Stock Judging.				9,250 00
Miscellaneous, Dept. expenses	3,450 00	4,386 77	10,750 70	5,850 00
Totals.	14,353 50	17,728 87	22,883 97	16,800 00



